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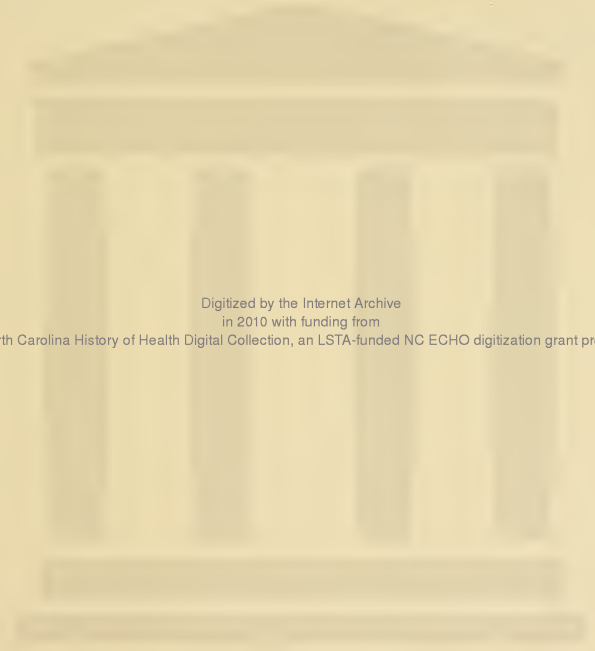

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Surgery versus Electricity.

By EDWARD SANDERS, M. D., of New York.

This is, indeed, the age of surgery in Gynecology. Pick up any issue of one of our modern Journals devoted to this specialty, and on turning over its leaves, page after page will be found discussing the surgical aspects of the various ailments to which the female genitals are subject; a very small number only being devoted to their medical relations. Indeed there seems to be a class of gynecologists nowadays who know of nothing but the knife, and no matter how insignificant the ailment they are called upon to manage, or how devoid of danger to life it may be, surgery seems to be the only court of appeal known to them.

Now every operation, no matter how trivial it may appear, carries with it a certain amount of risk to health and life, and before a resort to such is recommended its various aspects and dangers should be carefully considered, and its possible termination explained to the patient; for she is the one above all others who is most to be considered, and she it is who should be left to decide whether or no she is willing to encounter the risks; and to do so intelligently she must understand what she is about to undergo. More than once have I known operations to be recommended when time has proven them unnecessary; and even to be done, in fact, without the patient's knowledge, and therefore without her consent. Danger lurks in every incision we make, in spite of modern surgical perfection, and even trivial operations have been followed by death. Thus patients have died after simple passage of the uterine sound, after dilatation of the cervical canal by the sponge-tent, and even after divulsion by metallic dilators, or after curetting the uterus.

Death has, to my knowledge, even followed removal of a tonsil, and the excision of a sebaceous cyst from the head. So truly, we may say, that death lurks in every incision we make, and hence operations should only be undertaken when actually indicated, the patient being made aware of all the circumstances and dangers surrounding her case, and the actual indications for an operation.

We might almost characterize the present operative tendency as surgery run mad, but this is a rather harsh way of putting the case. Witness the numerous operations to which the female genitalia are subjected. The vulva and vagina have their many plastic operations, the cervix also

15235

has its share, the uterus for almost every conceivable disease to which it is subject is cut and sewed and scraped and fixed and trussed up, so that the average memory can hardly carry the names and modes of operation to which it is subjected, while as for diseases of the tubes and ovaries there is but one thing to be done, and that is cut them out. Indeed it is a surprise to me that some surgical genius has not arisen who has recommended the removal of the tubes and ovaries in early life, thus doing away with the possibility of any future ovarian or tubal disease, even though at the expense of the extinction of the human race; just as similarly a New York surgeon has advised the early removal of the infantile, healthy appendix vermiforms merely for prophylactic purposes.

Absurd as such an idea seems, there is an almost parallel one which is whispered about, though not admitted to the light of day. It has been said that some women, of the genus society, have requested and even submitted to the removal of their ovaries, so that there would be no danger of impregnation or the bringing forth of children, which does not necessarily follow pregnancy, and thus avoid interference with the little plans and pleasures of their giddy society lives. True this is simply a mere rumor, but mere rumors sometimes, even in medical matters, have a grain of truth in them, and may have actual facts to back them.

I once had a patient, a married woman, express to me the desire to have her ovaries removed, as she did not fear the operation, had heard of its absolute safety (?), and did not want any children, any brats, as she expressed it, to bother about or worry her.

There are a number of things to be considered when about to recommend a resort to surgery in gynecological cases: 1st, is an operation actually needed, or can the case be cured without the knife; 2d, are the dangers of the operation greater or less than those of the disease for which it is undertaken; 3d, will the operation cure or give sufficient relief to warrant its being resorted to, or in otherwise incurable cases does it offer a possible chance of relief.

1st. It has been my experience, during a considerable period, to meet with quite a number of gynecological cases where operation had been advised, not by mere tyros, but by well known specialists, more particularly in instances of ovarian and tubal diseases, where, by other means, especially by electricity, I have succeeded in bringing about relief or a cure. For instance consider the three following cases.

A woman of about 35 years of age, married 13 years, and suffering from double chronic oophoritis, with anteflexed uterus and a narrow cervical canal. was advised by a very well known specialist in this class of diseases, to have her ovaries and tubes removed, being informed that this was the only and proper thing to do. This advice she declined to act upon, and presented herself to me for electrical treatment. In three months

her ovaries and tubes became perfectly normal to the touch, all her pains had disappeared, and she looked and felt perfectly well. She then expressed a wish to have a child, having been, up to this time, sterile; and accordingly she was placed under chloroform and her cervical canal thoroughly dilated.

Advantage was taken of this opportunity to make a careful examination of the tubes and ovaries, and they were found in no way to depart from the normal type as determined by the touch. In due time she became pregnant, and a female child was born after a comparatively easy labor, some 14 years after marriage. This child is now two years old, the mother has remained well, but the father having died shortly after this child's birth no further pregnancies have taken place. The advent of this girl in this family was an extremely important event, as the heirship to a considerable fortune was involved. A boy would, of course, have been preferred, the grand-father, the possessor of the money, wishing to have his name perpetuated; but sex is something over which we poor doctors have no control.

A second case, also suffering from chronic oophoritis, was one where removal of the ovaries had similarly been advised, the patient being told that death was inevitable and would soon follow if the advice given was not promptly acted upon. Nevertheless operation was declined. She presented herself to me for electrical treatment on the advice of a friend. The use of galvanism was persisted in for about six months, but although the pain and other symptoms dependent upon the ovarian trouble was entirely relieved, dysmenorrhœa of the obstructive variety, due to an anteflexed uterus and a narrow cervical canal, persisted. This was overcome by through dilatation under chloroform, the ovaries and tubes being at the same time carefully examined and found normal. All dysmenorrhœal pain disappeared, and the patient felt and has continued perfectly well. Seen a few week ago she expressed herself as being a model of good health during the four years which has intervened.

The last case to be here related is very similar to the foregoing. She also suffered from chronic oophoritis, with a narrow cervical canal, but the uterus was retroverted to the second degree. She was subject to sudden attacks of faintness, preceded and followed by a great fear of death. On consulting a specialist he informed her that her attacks were dependent upon her ovarian trouble, that these organs must be removed, and that very promptly, otherwise she would undoubtedly die in one of these fainting attacks. This only intensified her fear, and life became a constant torment to her; though in spite of this she positively objected to the removal of her ovaries. A considerable interval, several years, had intervened between the time of receiving the above advice, and the time she presented herself to me for treatment, her symptoms remaining unchanged. Here also electricity was resorted to with a perfect result, and her ovarian

troubles with their incident pains and nervous attacks entirely disappeared after four months' treatment. Having been married 10 years without any issue, she begged me to dilate her cervical canal, an operation which had been previously advised by another physician. This was done, although she was informed that it would probably prove unsuccessful, for the reason that she had had some years before an attack of pelvic peritonitis, which had slightly bound down the retroverted uterus. Advantage was taken of the anæsthetization to interrogate the tubes and ovaries, which were found healthy to the touch. Nine months have now passed, but no baby has appeared, nor are there any indications of the advent of such, but she continues perfectly well in every respect.

These three cases have been quoted because in every one the patients have continued under observation for a considerable time after electrical treatment had stopped, and also because under an anæsthetic the condition of the parts had been carefully determined, so that no question can be raised as to the actual cure and its probable permanent continuance.

Other cases might have been quoted, for I have met with quite a number of others, where operation had been recommended for various female genital troubles, but the advice not accepted, and yet no evil has followed, cure even having otherwise been brought about.

How large a percentage of cases of chronic ovarian and tubal disease actnally require operation is difficult to determine, but of this we may be sure, many are advised to submit to the knife where other means, especially electricity, if faithfully tried, would bring about either amelioration, symptomatic cure, or even actual cure of the disease itself. Where encysted pus exists, either in the tubes, ovaries or pelvis, an operation is almost imperative, and that without delay; but where pus is absent, or not encysted in the tubes, other means are worthy of trial. Time and time again have such cases been submitted by me to the action of the galvanic current and with almost uniform success, failure following in not more than 10 per cent., and then only where there were old, firm, unyielding pelvic adhesions, or where the disease was of very old standing and very deep seated. There is besides one great advantage of electricity in these cases over surgery; if it does no good, it does no harm; and this claim is made in spite of the unsubstantiated statements of the surgical specialists who maintain that electricity increases the risks of a future operation by causing adhesions. This claim is not borne out by facts, adhesions being no more common in cases where electricity had been previously used than in those that had not been so treated. We are speaking here, not of electro-puncture, which had best be entirely discarded, but of cases where simple electrification has been resorted to, as for instance, by pad electrode over the abdomen, and ball electrode in the vagina, or platinum sound electrode in the uterus.

Abdominal surgery is not infrequently followed by death, electrical applications to the vagina or uterus in my experience, which has been very extensive, never. Electricity, if rightly carried out, with proper precautions as regards time, form, duration of application, antiseptic measures, etc., is absolutely devoid of danger. Hence it should always be given the preference in proper cases, should always be faithfully tried where the circumstances and indications permit, and then if it fail a resort to the knife may be recommended, always providing, however, the conditions of the case warrant the dangers of an operation.

2d. It has been said, and that truly, that independent of the presence of pus, either in the tubes or ovaries, there is absolutely no danger to life from the existence of ovarian or tubal disease. Goodell, Young, and others, have pointed out this fact, yet gynecological surgeons go on, in spite of this, submitting patients to serious surgical procedures which not infrequently are followed by death for conditions which may be said to be, in themselves, actually devoid of danger. No matter how we view the question, it cannot be right to so jeopardize a patient's life. Of course it is possible for her sufferings to be so great as to make life unbearable and not worth the living, although the disease itself would not actually kill. Here, of course, the conditions are different and an operation becomes justifiable after all other measures have failed, the patient consenting, following due explanation of and proper comprehension of the danger she is about to submit to.

Ovarian and tubal troubles are here particularly dwelt upon, because these are the maladies above all others for which major operations in gynecology are most frequently performed. But there are other genital diseases in the female which surgery claims as its own; fibrous tumors of the uterus, for example. These are very rarely actually dangerous to life, but cause considerable annoyance by their weight, bulk and pressure effects; though I have seen quite large tumors which produced absolutety no inconvenience. Nevertheless, these tumors, even when small, are now commonly removed together with the uterus and the adnexæ. To my mind such a surgical procedure is hardly justifiable in the light of the comparatively small danger and inconvenience these tumors produce, more especially when we remember that there are other safe means of relief, which by tiding over the patient until the menopause, may render her perfectly comfortable, and permit at this time the usual shrinking of the mass that follows the establishment of this process.

Although I have never seen a uterine fibroid entirely disappear under electrical treatment, yet I have seen the tumor greatly diminished in size and with this the institution of the symptomatic cure of the disease, and this without the slightest risk to the patient. These cases are never to be treated by electro-puncture, for this is much too dangerous a procedure. How little danger there is in the ordinary uterine fibroid has often been

demonstrated to me, but never so forcibly as in a case seen some years ago in hospital, An old, shriveled up, diminutive German woman, whose age could not have been far short of 90 years, was brought in suffering from an enormous abdominal tumor, which was so large that whenever it by chance slipped over the edge of her cot, invariably pulled her out of bed to the floor by its weight. In death, which was more due to old age than anything else, the tumor was found to be a uterine fibroid weighing 64 pounds, whereas the woman herself only weighed 62 pounds, the question then arising whether the tumor had been removed from the woman, or the woman from the tumor. Surely in this case her life was hardly cut short a day by the immense and unwieldly mass this woman bore about in her abdomen, nor did she seem to be inconvenienced in the least, except by its weight.

Other diseases which are frequently submitted to surgery by the gynecological specialists are those directly pertaining to the uterus itself; as for instance, chronic metritis or endometritis, displacements and the like. None of these are dangerous to life, nor do they cause sufficient suffering to warrant a dangerous surgical procedure. More especially is this true of displacements, which of late years seem to have furnished a specially fruitful field for what may be considered gynecological surgical novelties. For example, we have the uterus suepended by its shortened round ligaments for retro-displacements or descent, anchored to the vagina for ante or retro-displacements, wedged in the vagina for prolapsus, etc., etc., through a whole category of operations, making much too long a list to bear rehearsal here, for the various forms of malposition of the uterine body, innocuous to life as they really are.

Many instances, but of course not all, of chronic endometrial or metrial diseases are amenable to electricity; for example, subinvolution and areola hyperplasia, chronic endometritis, either cervical or corporeal, but this treatment requires patience and considerable experience of the actions of the two poles, their mode of application, requisite strength of current, duration of application, etc., and should not be undertaken without proper knowledge and the requisite facilities being at hand. Displacements, unless dependent upon subinvolution or areola hyperplasia, or chronic uterine inflammation, are best treated by other means than electricity, and in conditions of extreme prolapsus a resort to surgery is probably the only means of cure.

3d. Complete cure does not always follow gynecological surgical procedures, relief is not always obtained, and in not a few instances the patient remains absolutely unbenefitted, and even may be made worse as a result of the operation. As the sequela of such surgical interference a number of accidents may occur. Thus, after cœliotomy we may have simple or fecal fistula, abdominal hernia, pelvic peritonitis with secondary adhesions of parts, or the presenee of exudative masses, while certain

symptoms may be instituted which did not exist preceding the resort to the knife.

Exactly what the death rate from genital troubles in females, exclusive of cancer, is, is impossible to determine, but that it is very small, considering the entire class, must be admitted. The mortality following operative interference, in the same class of diseases, varies considerably in the experience of different operators, and even at the hands of the same operator at different times. Taking cœliotomy for tubo-ovarian disease, a death rate of 3 per cent. is considered a very good showing, and this is obtained by only the best and most successful surgeons. Indeed, 10 per cent. seems to be a very good average for the generality of abdominal operations. What the death-rate from the minor operations in gynecology may be, is unknown, but that deaths do occur even after such simple procedures is admitted on all sides, and not infrequently follow when least expected, or apprehended. Now no genital trouble, excluding malignant disease, shows anything near such a mortality as above indicated, and if we consider tubo ovarian or pelvic maladies proper, the only forms which really carry any danger to life with them, are those where pus exists, and these cases are in the minority. Outside of these cases more or less chronic invalidism is all that is to be feared. Where pus is present an operation is always to be recommended, as a resort to electricity is here never to be thought of. Where the invalidism is such that life is unbearable, and other means have failed after a fair trial, a resort to the knife becomes a necessity.

It will be observed that it is here not claimed that surgery is never to be resorted to, and that electricity is an universal panacea in many forms of female genital troubles. What is maintained is that there are many cases where a resort to the knife is unwise and unnecessary; and that in not a few such electricity will bring about amelioration of symptoms and even a perfect cure of the disease itself. Rampant and unnecessary surgery is always to be deplored; while riding an electrical hobby to death is bad, both for the hobby and the rider, not to mention the unfortunate patient. Therefore, just the same is the reckless employment of electricity in every form and variety, and in every instance of genital disease of the female to be deprecated. Each has its proper field of usefulness to which it should be strictly confined by a perfect knowledge of its powers when properly applied under the guidance of skill, care, and a conscientious consideration of the patient's welfare.

126 East 82d St., New York City.

The Chair of Pathology has been abolished at the University of Michigan. The occupant of this chair was "imported" a few years since. The work will be distributed among other professors.

Toxins and Antitoxins---The Modus Operandi of Modern Serum--Therapy.

By Hugo Engel, A. M., M. D.,
Fellow of the American Academy of Medicine; late Professor of Nervous Diseases and of Clinical Medicine at Philadelphia, &c., &c.

Unless one has made a study of the subject, it is by no means an easy task, to give a lucid reply to the questions: What is immunization, what are antitoxins, and how do they act? That the *modus operandi* of these modern therapeutical procedures, which for the first time in medical history remove the treatment of diseases from the field of empirics and art and bestow upon it the certainty of science, still is not well known, various written and oral inquiries, addressed to me of late, have demonstrated. Reflection will show us, why we cannot expect every busy practitioner to be thoroughly conversant with the subject.

At the time, at which most of the practicing physicians of to-day passed through college, bacteriology either still was an unborn term, and the knowledge, it teaches, was yet hidden in the womb of futurity, or this important branch of medical science was in its infancy, and one of its most modern achievements: serum-therapy, still remained an unfecundated ovum, not yet called forth into life by that spark of bright intellect, often intuitive, but always based upon profound acquaintance with the underlying principles, to which, as the acme of reasoning on any subject, so many an invention, so many a discovery is justly due.

Then we cannot deny the fact, that most of our medical journals, although they have not been backward in promulgating the victory achieved and the brilliant results attained, have yet failed to publish the details of the physiological (really pathological) process, which is the basis of every procedure connected with serum therapy. And not a few physicians, even among those familiar with every progress in the gradual evolution of bacteriology and the therapeutical measures taught by it, look upon all these recent achievements simply, as they would do upon the discovery of some new remedy; never reflecting, that in the birth of bacteriology a step forward has been taken, a revolution established, more important, than any other since the existence of medicine as a separate branch of human knowledge; that with that discovery the educated, modern physician, or surely he of the near future, has forever left the standpoint of the ancient leech; that this masterly creation of the genius of deep research of the white race is placing the disciples of Æsculapius upon a higher social status, than any of the other professions will probably be ever able to occupy; that it is the first grasp of the power, which will make the physician the master of the human race, to whom all will look up with esteem, admiration and gratitude, and that the pioneers in this field: a

Koch, a Lister, a Pasteur, will be called by later generations: the fathers of scientific medicine!

For, perhaps, four thousand years the brightest intellects of mankind, stars in the endless heaven of science, have studied the nature of infectious diseases; their keen minds early taught them, that a something—whether, as humoral pathology preached, the collection of bad juices within the organism, or, as the accumulation of more evidence made probable, an impurity in the atmosphere—was responsible for the development of those fatal epidemics, which so often destroyed the population of wide areas, but though after centuries of patient research they finally came near solving the problem by recognizing a contagium vivum, yet all was in vain; they groped in darkness; theory had to take the place of facts and truth! At last, the mechanical and allied professions came to our aid; better constructed microscopes, more powerful glasses, the discovery by chemistry of new and delicate coloring matters, all contributed to the final achievement, the far-reaching discovery of those minute beings, so near the boundary line of the vegetable and animal kingdoms, that for a long time their vegetable nature was not recognized: bacteria!

And are its achievements not great, in its infancy even, as bacteriology still is? Let us glance but at two diseases, which formerly decimated mankind, and by them compare the present with the past.

The Asiatic Cholera, when it had once approached our hospital shores, like the fiend left desolation and destruction behind it. When it had previously entered the port of Philadelphia, or any of our seacoast cities especially after it had grasped a victim in such a mart of the world, as New York, where in the interest of commerce, thousands and thousands daily come and go from and to every part of our wide domain, to how many did the deathbell toll, how many succumbed to the fell destroyer! But how different was the picture, how opposite were the results, when, a few years ago, the dreaded malady, which like Ahasverus, whom the curse of Christ sent wandering for thousands of years, has followed the footsteps of man along the highways of nations, had arrived in New York, and landing, had carried five of its inhabitants into an untimely grave? The modern physician called a halt; he placed an unsurmountable barrier around the few places, in which the fatal epidemic had secured a foothold, and preventing its further spread by destroying the pathogenic cause of the infectious malady, exterminated it at our very portals!

What used to be our prognosis, when the first drops of blood from the nostrils of the child, perhaps still playing and lively, at times of epidemics, betrayed to the initiated physician the approach of nasal diphtheria; or when the croupy sound of the voice, the embarrassed breathing and the cyanotic face indicated the descent of the lesion into the larynx; or when the wide spread of the membrane over pharynx, palate and roof of the mouth and the rapidly growing adenoma with the steadily augmenting

stupor showed the terrible character of the attack? What is it to-day, under the same circumstances, if we see the case within the first 24 hours, in time, therefore, successfully to employ the protecting antitoxin?

Great as already are the results, teratological almost as they may seem to some, far greater and more miraculous they promise to become in the near future; or as Lister said, the founder of surgical antisepsis, when, on his return from Berlin, he reported to the Medical Society of Great Britain the observations, he had made, while on a visit to Koch: "Though my lips are sealed, yet that much may I say, ere long the world will stand aghast at the discoveries made by that modest, unobtrusive and patient savant!"

But, with the achievements of the recent past before us, and with those in the future in expectation, it behooves us all, to have at least a general knowledge of the *modus operandi* of the new therapeutical methods in question, and I shall try in the following to give a description of it, as concise and yet as clear, as my own limited abilities will permit.

Let us first recall to our memory some well known facts. To-day an epidemic of measles breaks out in some locality. During the first few weeks physicians will meet with the most virulent cases; here and there a patient dies within an hour or two, after being taken sick; from the start he appears to be in a state of stupor, gradually deepening into coma, which, as a rule, accompanied by convulsions, ushers in the fatal end. These victims seem to be overcome, as it were, by some narcotic. The longer the epidemic continues, the milder and the more changed will become the picture of the disease, as presented by those attacked. Further those, who have survived the seizure, and who have recovered their health, are safe from a second attack, however much they may mingle among those, still suffering from the malady. The infectious complaint befalls the same person twice but rarely in the same epidemic, but these cases also find their explanation in the facts soon to be stated.

To illustrate by a different picture: we usually acknowledge, that a dose of from 2 to 3 grains of morphia is fatal. And yet I have known patients, who, beginning to take one-sixth, or a quarter of a grain of the drug, once or twice a day, for some painful ailment, and slowly increasing the dose, were finally taking from 10 to 20 grains of morphia in one dose, and from 60 to 80 grains per diem. And still they showed no sign of poisoning!

The following will lead us a step further: Dr. Paul Gibier, the talented director of the New York Pasteur-Institute, in a recent article* states these interesting facts about snake venom:

If a guinea pig is bitten by a rattlesnake, it will die under convulsions in less than one hour. Now, if we take a small portion of a drop of the

*The New York Therapeutical Review, Vol. III., No, 3.

same snake virus, properly diluted, and inject it into the circulation of a guinea pig, by the hypodermic method, in a similar way, therefore, to that by which the snake itself forces its virus into the system of its victim, provided we have by previous experiments correctly determined the exact dose, the animal may feel some slight discomfort and give some evidences of malaise, but it will recover. After its usual condition has been reestablished, we again inject some of the snake virus, but this time we slightly increase its strength, or the quantity. Again the animal will evince only some slight malaise. In this manner we may continue gradually to augment the intensity and the amount of the venom, which we inject into the same guinea pig, until we finally employ the same dose, of the same strength, as the snake itself would discharge into the wound and as in any other animal of the same species would cause death, but which exerts no such effect upon the animal in question, because that has been protected against the virus by gradually "accustoming" it to the latter.

The first attempts of a young man, to use tobacco, and the success, he at last obtains in it; the individual, who by acquiring the habit of drinking alcoholic beverages, can ultimely imbibe great quantities of them without intoxication: all these belong to the category of the examples quoted, though the last two do not pertain to the special variety here aimed at.

We learn from the instances given :—that the poison of an epidemic disease must slowly become attenuated, the more, the longer the malady prevails in a district, and that the inhabitants of that region either gradually become accustomed to the poison, or, (what will soon become apparent as being the same thing) that their vital power of resistance increases with the length of exposure. Our later statements will make it clear, that in the human beings living in a locality visited by an epidemic disease, the same process really takes place, as what occurred in the guinea pig, which had become accustomed to the snake-venom.

But before proceeding further, we will mention a surprising fact. After we have, in the manner described, protected a guinea pig against the venom of the snake, that animal's blood has acquired the power, of not only protecting itself, but of also protecting other animals. For if we inject some of the serum of the blood from the living guinea pig, thus protected, into the circulation of an other animal, not only will that second animal be protected just as well against the same venom, but to an animal, bitten by a rattlesnake, that same serum, if quickly introduced into the system of the victim, and in sufficient quantity, will be the means of saving its life. In these cases the quantity of the serum needed for protection—termed immunizing—and that required for saving life, after the virus has been imbibed, (for which always a far greater amount is necessary), depends upon the size of the animal to be protected or cured; i. e., for every gramme of bodyweight the millionth part of a cubic centi-

meter (c.c.—15 gr.) of the protection serum must be employed for protection, or 1 c.c. serum must protect 10,000 grm. weight of animal. It forms the unit in the measures.

We may here state, that a larger quantity of serum—whether such from an animal, protected in the way described against snake-venom or from one, in the same manner protected against the specific poison of any infectious disease—is needed to afford protection, immediately after the introduction of the virus, than a few hours previously would have sufficed, and that this amount increases, as time elapses, until, when the very first symptom of the disease has shown itself, after the minimim fatal dose, one thousand times the quantity of serum, necessary for simple immunization, must be injected, and this quantity increases at an enormous ratio with each succeeding hour, so that 24 hours later the quantity required would be too large for introduction into the animal.†

We know to-day, that every infectious disease is caused by the action of low organisms. Of the latter we obtain best an idea, if we think of mildew, which itself belongs to a nearly related germ. These organisms, called bacteria, germs, microbes, micro-organisms, &c., according to their size and shape, have received different appellations; rod shaped bacteria are termed bacilli, those of a round form, cocci: when screw-like or resembling a wavy line, spirillæ or spirochetæ.

It is due to the great Koch, that we are able to artificially culture these germs. Especially through these pure cultures we have learned some important facts. Most infectious diseases are produced less by the germs themselves—though they too often cause irreparable damage—than by a virulent substance, which these low organisms manufacture, while they live, mature and multiply in the tissues, in which they thrive. How great the chemical changes are, which these minute vegetable seeds bring about, we comprehend easily, when we remember, that the change observed in some fluids to vinegar and the alcohol fermentation and the decay and decomposition of all dead organic tissues would be impossible in the absence of the bacteria. which cause them. Whenever we add to such fluids or substances drugs, inimical to these germs, or, in other words, to employ a modern term, when we disinfect these fluids or substances of a similar kind, no vinegar will form, no fermentation occur, and no decomposition or decay take place; the same, when by heat or other means we free such fluids or substances from bacteria, secure, therefore, what is called asepsis, and when we then hermetically seal the vessels, in which the fluids or substances thus sterilized are to be kept, preventing by those means the admission of all low organisms, these fluids and sub-

†Wm. H. Welch, General Considerations, &c., in Pepper's American Text-book, Vol. II., p. 68.

stances may be preserved for centuries, without any chemical change occurring in them. Thus were the Egyptian mummies preserved for thousands of years.

Perhaps without knowing the why and wherefore, the priests of ancient Egypt had evidently discovered, some three or four thousand years before Christ, the secret of preventing decomposition, just as, some nine hundred years before our era, Homer knew, that obnoxious odors could be destroyed and their deleterious influence on health could be avoided by cleanliness and fumigation with burning sulphur, for in his Odyssey he makes Ulysses order the maids, thoroughly to clean the hall and fumigate it with burning sulphur, after he had slain all the suitors, whose dead bodies he had removed from the room.

If we select for instance the germs, which give rise to tetanus and culture them, and then separate by a process of filtration the microbes themselves from the beeftea or the blood serum, which we employed for their culture, as the soil is used for the raising of plants from seeds, a great difference will be found between the effects of the bacteria themselves, when introduced into the animal economy, and the fluid, in which they had multiplied. For provided this experiment is done under proper aseptic precautions, so as to insure freedom from the admixture of other germs, the injection of the micro-organisms themselves may scarcely give rise to any phenomena, but that of the fluid will develop the symptoms of poisoning, and under certain conditions, which to consider here would lead us too far astray, give rise to the disease of tetanus.

In that fluid we find a most virulent substance, which we call the toxin of tetanus. In the same way, by the pure culture for instance of the Klebs-Loeffler bacilli of diphtheria, we may obtain, after separating the microbes themselves by proper filtration, a fluid containing the toxin of diphtheria. These toxins, introduced into the animal (or human) organism, call forth the manifestations of the infectious disease. What the exact substance is, we do not know, as these toxins have thus far defied the greatest chemical skill in the attempts made to analyze them. How exceedingly virulent they are, may be gleaned from the following:

If one drop be taken from the fluid, in which the bacteria of typhoid fever developed their toxin, and if to this one drop be added 999 parts of sterilized water, the 70th part of one drop of this attenuated fluid suffices, if injected into the circulation of human beings, to cause the outbreak of the most virulent and fatal forms of typhoid fever in 64 individuals! And if we reflect, that in the original drop nearly the whole was beeftea or serum, and that the toxin itself formed but an immeasurably small particle of it, we may conprehend the enormous and almost incredible virulency of this poison, against which the most subtle employed by the Borgias seems but an innocent plaything.

Kotassy prepared a fluid of such appalling potency that 0.000.000.05

gramms sufficed to kill a mouse weighing 15 grammes, so that the twenty-three hundredth part of a milligramme (about the 130,000th part of a grain) would be a fatal dose for an adult, while about half a grain of atropia and 1½ grains of strychnia are considered the minimum fatal doses of these drugs in the case of a full grown person!

What a subject of study for future criminal jurisprudence! Here a base nephew awaits anxiously the death of a rich uncle, whose prospective heir he is. The uncle may have an attack of neuralgia, and a hypodermic injection of morphia is to be administered. To the solution the nephew adds with murderous intent the sixty-fourth part of the 70.000th portion of a drop of the original typhoid-toxin-fluid, a quantity so minute, a virus so delicate, as to defy all detection, and, soon after, the uncle is seized with a fatal attack of typhoid fever. That, though not of such potency, the poisons of the Borgias must have been at least of a similar character, is apparent from the records preserved; that within a week or two persons thus poisoned were seized by a wasting disease attended by delirium, &c.

But if the modern physician with benevolent intent, in his endeavors, to protect his race against disease and to save it, when attacked, from succumbing to it, takes one drop of the original toxin fluid, say of diphtheria, and dilutes it with aseptic water, or in some other way, too complicated for us here to describe, until finally it has become so attenuated, that a drop injected into the circulation for instance of a horse, will give rise, at the most, to a slight feeling of malaise, an almost wonderful, contrary effect is produced by continuing these injections with doses slowly increased.

Gradually the toxin fluid, injected into that horse, perhaps every few days, is made stronger and stronger, care being taken, to increase the dose in exact accordance with the reaction previously produced, until finally the animal can bear the full strength of the original toxin fluid. When that point has been reached, a test is made with the serum of that horse, viz.: the 10,000th of a cubic millimeter of it must protect one gramme weight of animal. Taking this unit as the basis for calculation, an animal of ten times the last mentioned weight, if it had injected into its system the minimum fatal dose (for that animal) of pure diphtheria toxin, must be protected by the 1000th of a cubic millimeter of the serum of that horse the serum being injected immediately after the introduction of the virus. That same serum is then employed as the immunizing substance in the human being, to protect it against diphtheria, for which, however, a much smaller quantity is needed, and as a cure, when a person has been attacked by the disease, in which case, as man weighs so much more, than the animal just referred to, about 7 cubic centimeter (105 drops in an adult, and about 3 c.c. or 75 drops in a child) must be injected of the serum. And if the curative injection follows within 24 hours after the outbreak of the malady, all observations, thus far made, have proved, that the serum is a

specific and causes the disappearance of the false membrane, the fever and other morbid phenomena, due to the diphtheria alone, within 24 hours! How much greater the quantity of the serum must be with every hour of a longer duration of the complaint, has been explained above. A very much smaller dose. on the other hand, suffices for immunization, and Virchow has added the weight of his authority to the fact, that such immunization protects the individual at least four months!

What the exact substance is, which in the serum represents the immunizing and curative power, we also do not know; we call it Antitoxin, and have discovered, that a far more minute quantity suffices to protect against the virus, than it takes toxin, to produce the disease, so that the Antitoxin is more powerful, than the original toxin itself.

Behring by gradually increasing the quantity of tetanus toxin injected by him into a horse, so augmented the strength of that tetanus antitoxin, that one c.c. of it sufficed to immunize 500,000 mice, each weighing 20 grammes, or 200 sheep, each weighing 50 kilo!

And this same antitoxin also developes in the human being (as in the animal), when a person has successfully overcome an attack of the disease, and seems to be strongest, by about the third or fourth week of convalescence. It appears, that that substance in the blood grows in power from the day the disease "takes a favorable turn," as the phrase goes, until some time after convalescence, when it reaches its greatest strength. In some acute, infectious ailments, as typhoid fever, which, as a rule, attack an individual but once in his life, the protective influence seems to last the duration of man's life. In some maladies this fact has been made use of practically, and in a number of cases with success. But the conditions, surrounding the development of each species of microbes, the different nature of the various toxins, the circumstances. under which alone they can act, and the variations in the behavior of the pathogenic bacteria themselves, when brought in contact with the living tissues:—all these determine the protection and mode of application of these toxins and their antitoxins, and so difficult are these studies, so dangerous some of these experiments, so radically different often are the results in various animals from those observed in man, and finally, so long a period of time must often elapse, before a definite conclusion can be arrived at, that we have thus far obtained success in but one disease:—diphtheria, although in several other maladies we are rapidly approaching similar results. Thus we have discovered, that one species of bacteria and their toxic products are inimical to some other species; further, that there are cases, in which the disease, supposed to be due to one kind of microbes, can be produced only in the presence and by the aid of several species of micro-organisms, and finally, that in again others the tissues must first be invaded by a different species of germs, ere the real pathogenic kind can fully mature and develop and call forth the group of phenomena, characteristic of the malady in question

To illustrate: the products of the activity of the microbe of erysipelas and those of the bacillus prodigiosus, both together, seem to have arrested, at least for a short period of time, the further progress of some cases of sarcoma, and to have caused in others a disappearance of the malignant neoplasm and a standstill of the fatal ailment, and from Berlin even a cure has been reported by these means of a case of cancer of the breast.‡ Further, true tetanus with its characteristic tonic rigidity and clonic convulsions, is produced by its own specific bacillus only in the presence of other germs; and finally, the bacteria of decomposition always follow, in the tissues, which are the seat of the lesions, those of diphtheria and of Asiatic cholera, if the individual, attacked by these epidemic maladies, lives long enough.

To show on the one hand, how the conditions may vary, under which we have to employ immunization and curative methods, so that procedures, differing completely from those observed for instance in diphtheria, must be adopted for therapeutical purposes; and on the other hand, how for about a century we have been practicing, empirically, it is true, but with unprecedental success, a different kind of immunization, I have only to draw attention to a well known practice, in vogue all over the civilized world as a protection against that dread disease: variola, the genuine small pox!

When in its first epidemics this dreadful scourge of our race deci mated whole populations, physicians naturally looked around with eagerness for a preventive. Just as vaccination later was the result of an accidental observation, so the first method adopted was probably due to an accident. As well known, inoculation preceded vaccination. They inoculated individuals with the contents of a variola-pustule. Perhaps, a physician, some day, thus inoculated himself, by having some accidental abrasure on his fingers come in contact with the discharge from a variola-pustule. While many were protected in this way against the severer form, some died, variola fully developing. The last result was natural, for the virus was not attenuated the least. Then Jenner noticed, that the dairy-maids, who milked cows, having pustules on their udders, whenever they themselves had similar pustules develop on their fingers, (without doubt also by an abrasure coming in contact with the contents of a broken pustule) were protected against variola, and then his genius discovered vaccination. The more empirics enter into the practical application of any branch of human knowledge, the sharper observers are the specially bright members of such a profession. With the substitution of science for empirics, patient research, based upon profound study, takes the place of quick observation.

And what is the process in vaccination? The result of the activity

‡Dr. Theodore Schueler, Erysipelserum in Cancer, Deutsch. Med. Woch., 1895, No. 37.

of the variola germs and of that of several streptococci pyogeni—the pus of the variola-pustule—is inoculated into a heifer. It gives rise in that animal to a modified, attenuated form of the same disease; it produces cowpox, the contents of whose pustule contain the antitoxin of variola, effective as a protection against the original virus, in the human being. Just as any seed, according to the soil, into which it is placed, and according to the conditions, more or less favorable, surrounding it, may produce a stunted growth or a grand specimen of the plant: thus the germs, in obedience to the ever true law: that, caeteris paribus, the better nutrition and the more favorable environs produce the more perfect species of any organic being, may give rise to the most virulent attack of the malady following in its train, or evolve but a very mild type of it. The antitoxins seem to be subject to an other law, just as universal: the more everything living has to fight for its existence, provided the combat be victorious, the hardier, the stronger and the more powerful it becomes The more virulent the virus introduced into an animal, whose blood serum is to generate a certain antitoxin, the larger the quantity of the potent poison inoculated and the longer in the system selected the always renewed destruction of freshly introduced virus is kept up: the more effectful will be the antitoxin finally developed, provided the animal in question survive the whole procedure with its health unimpaired.

In conclusion it remains for us to consider the mode and manner, in which the Toxins and Antitoxins act in the animal tissues. How they are produced, we investigated above; the toxin being the result of the chemical changes, brought about by the activity of the microbes in the fluids and tissues, in which they mature; the antitoxins developing in the blood of the living animal (or human) being in consequence of unknown changes, due to a successful resistance to the inroad of the germs themselves and their toxic products. Although the various pathogenic bacteria by no means behave in the same manner, after their entrance into the human (or animal) body, and although their destruction and that of their virulent products in individuals, who combat the malady produced by these organisms, or in those, in whom the growth and further development of the intruders is completely prevented at the onset, differ almost as much, as each species of microbe differs from an other; yet, for an intelligent understanding of the general *modus operandi*, it will suffice to follow the morbid process from the entrance of the bacteria into the living body to its final end:—either the recovery or the death of the victim, in a single species, in one disease: diphtheria, and we shall do so in the following without any special reference to the local lesions characteristic of that malady, and without detailing the decomposition of the false membranes by the septic micrococci.

In most cases, as soon as the pathogenic germs have gained admittance to the human (or animal) organism and reached the place, which,

because of the nature of the soil, probably suits them best, ere they have had time, to establish their permanent domicile and to commence that change in the chemical composition of the tissues, which ends in the manufacture of the virulent toxins, so characteristic of these microbes: by some agency, unknown to us, probably along nerve-paths, the wandering phagocytes;—those leucocytes, which are almost undistinguishable from the white corpuscles, except by their slightly different reaction to certain coloring matters—immediately become cognizant of the fact, that some intruder, whose habitat might become dangerous to the system at large, has sneaked in and taken possession of some portion of tissue. These phagocytes are the real watchers and at the same time the safeguards of the organism. How delicate their own innervation must be, may be learned from the activity, with which they at once swarm to the infected locality, the place, from which danger threatens the system. There may, however, be a different interpretation. When into a galvanic cell, containing a chemical fluid, two different metals are placed, separated from each other by some porous partition, a current is at once established, which passes from the one metal to the other, however great—within reasonable limits, though. if the most delicate tests were applied, it would be found practically without limits—the distance between them. As the whole circulatory system—blood and lymphatic—forms, indeed, but a single passage, whatever its intricacy, it may be possible, that a disturbance, such as would be induced by the presence of germs, created in one part of the circulation, is at once communicated to the bodies, it concerns: the phagocytes, in the same manner, as the current from the positive metal immediately seeks, through the fluid in the galvanic sells, the negative substance. So strong is the attraction, so marvelously quick are the leucocytes in responding to the stimulus, which in some way has reached them, and so widespread is the alarm, that often, within ten minutes after the introduction of the pathogenic germs, the larger vessels are emptied of their usual number of phagocytes, while an examination of the infected locality shows, that here they have accumulated. From every part of the compass they have hastened hither; every capillary in the neighborhood is filled with them, and in the area, immediately surrounding the tissue attacked, they actually choke up every avenue of ingress or escape. The first step in the defence of the system by the phagocytes against the dangerous intruder has been attained; the germs are surrounded by a wall of active phagocytes; they are perfectly immured, as it were. The morbid state, which we term congestion, is thus established.

The further progress is as follows. The pressure from behind upon the phagocytes continues, and as a consequence of this congestion and of the interruption, which the circulation suffers at this point, we notice, upon repeated examinations of the tissue attacked, these changes. First, the phagocytes surrounding the bacteria are all of one size; soon after they

have changed their shapes by the mutual pressure, they exert one on an other, and gradually their intervening walls, where they are in most intimate contact, become absorbed, and before we are aware of it, one or more microbes are imprisoned in one giant cell, the latter simply being the result of the combination of several of these phagocytes, whose intervening walls have disappeared. In the same way all the intruders are immured. By that time, at least in milder cases, in which but few germs had entered, the process has about reached its end; the germs are dead; most of the phagocytes have returned to the circulation; the giant cells, in some manner, by their own metabolic action, digest the remains of the dead microbes, and, soon after, the whole becomes absorbed without leaving any cicatrix, any trace behind.

In more severe cases, in which, however, the prognosis, *quoad vitam*, as regards the seat of lesion, still is favorable, but in which, perhaps, a great many germs had penetrated to the tissue in question, the number of the phagocytes immuring the microbes becomes so great, and the interference with the circulation thus brought about so decided, that the most inner phagocytes sacrifice themselves, to save the system at large; the whole locality seized upon by the intruders, deprived of nutrition, dies; micro-organisms, leucocytes and tissue, all break down, and, by the usual process of retrograde formation, everything concerned in the morbid condition degenerates and is finally absorbed, but not without some local symptoms.

In again other cases, the result is still different; what we used to call: inflammation, sets in; pus forms, and the whole breaks down in a manner, similar to that observed in the cases of small abscesses. Here local symptoms and cicatrization betray, what happened.

Were this morbid process, in its various types described, the *modus operandi* in all cases, in which pathogenic bacteria find entrance into the organism, not only would no fatal case occur of an infectious disease, but the latter would never give rise to any alarming phenomena. This process is probably the rule in those, who, at the time of epidemics, escape the contagion, though they are exposed to the same danger, as others, who are attacked by the malady, and though the specific germs probably also obtain admittance to their systems; the invader is destroyed, before it had time to mature and multiply and poison the organism at large by its virus, the toxin.

While some individuals, by their inherent vitality, by some special activity or other property, possessed by their phagocytes, or by some unknown quality of their systems, may thus destroy the pathogenic bacteria, the antitoxin, if employed for immunizing purposes, evidently bestows this vital power on those, who were previously not provided with it. The process after the introduction of the antitoxin for protection, is then the same as described; provided the infection occurs during the

period of protection—in diphtheria according to Virchow about four months—the infectious germs are destroyed, before they can cause any damage.

But what happens in unfavorable cases?

Although here also the phagocytes try to immure the intruder, yet they do not succeed; either their number is not sufficient, or their vitality not great enough, or the germs are too many and their development and with it the formation of the toxin too rapid. We find in such cases at the infected locality the dead remains of the phagocytes; the bacteria complete their maturity, multiply enormously, and no hindrance is offered to and no barrier erected against the diffusion of the toxin over the whole circulation. But with the toxin active and spread throughout the system, the phenomena of the disease in question make their appearance; the period of incubation has given way to the full course of the infectious malady, ending in death, if no aid can be given, or if the victim's own vitality cannot withstand the virus.

But when the outbreak has just occurred, the antitoxin again comes into play. Researches have demonstrated, that, immediately upon the introduction of the antitoxin, the number of the leucocytes greatly augments; they once more accumulate around the infected locality, but this time, either because endowed with greater power, or because of their greater number, they obtain the victory and perform more: in some way or other they seem, or something else appears, to destroy the toxin already produced; the process, only more rapidly, takes place, which always occurs but more slowly, in those, who, without the antitoxin, overcome the disease.

Various drugs have been found to create an increased leucocythosis; among them pilocarpia, the various nucleins, protonuclein, &c., but the latest researches have demonstrated, that the simple augmentation of the leucocytes brings about no bactericidal or toxicidal effect whatever; in many a case of an epidemic disease, without the influence of any remedy, a very great increase of the leucocytes has been observed, at various stages, even just before death, but without inducing the least visible change in the morbid phenomena. It seems, that only those leucocytes, which respond to certain color-tests, the real phagocytes, are alone here of importance. In some infectious diseases, like diphtheria, by one of the means, above enumerated, as protonuclein, &c., a decided increase in the white corpuscles can be obtained; so also in cancer, and yet, not the minutest influence is exerted on the complaints. If, however, the antitoxin is introduced, we suddenly find a greatly augmented number of those leucocytes, which respond to the color-tests referred to—a result attained by no other known remedy—and with this increase of the phagocytes the malady at once assumes a milder character and often disappears within

24 hours (still speaking of diphtheria), provided the antitoxin has been injected early enough.

And what makes the effect of the antitoxin still more probable and what proves still more the important role, which the phagocytes play in this curative process, is the fact, that exactly the same changes have been observed in the blood of persons, who without the antitoxin, combatted the disease.

I have endeavored in the foregoing to show, how the toxins are developed by the living bacteria, and how we proceed to produce their antidotes, the antitoxins, by gradually accustoming the system of some animal to the toxin, and then employing the serum of its blood, in which the anti toxin has been thus created, for the protection of man against the malady and for the cure of the disease, if it has invaded the human being. I have also attempted a description of the natural process, by which the human (or animal) system destroys the agents of infection, when they have entered the organism, and of the manner, in which the phagocytes perform their work. Finally, I have tried to explain the process in the fully developed disease, when ending favorable and when the issue is fatal, and I have also referred to the augmentation and the effect of the phagocytes in these cases under the influence of the antitoxin, laying stress on the fact, that a simple increase of common leucocytes, as artificially produced by various other means, is by itself of no value.

It remains but to mention a few other observations. It is probable, that the antitoxins are evolved in the blood of every human being, that has successfully overcome an attack of an infectious disease, and especially in the third or fourth week after convalescence. It has, therefore, been proposed, in a dangerous case, for instance, of croupous pneumonia, to employ the serum of a patient, who had recently overcome the same malady.

Then again : dogs are almost exempt from consumption. It is either exceedingly difficult or impossible to produce in them the tuberculous malady artificially. It is but natural to suppose, that their blood must contain some antitoxin inimical to the tubercle-bacilli or a chemical antidote to the toxin of the latter. The blood serum of dogs has been used in consumption and success has been reported in some cases.

All this might find a different interpretation by considering the following : Either by disease or by surgical operation the whole thyroid gland is removed or destroyed in man or animal. The symptoms of glandular leucocythæmia or of mixoedema following demonstrate the presence of a poisonous substance in the organism affected. If we now plant a small piece of a healthy thyroid, taken from a living animal, upon the peritoneum, or if in man we feed the patient on the healthy animal thyroid gland; the morbid phenomena almost at once begin to disappear. What do the manifestations of Addison's disease, due, as it is, to a des-

tructive disease (tubercular) of the supra-renal capsules, indicate, but the presence of a potent virus in the system? Various organs in the human body have evidently the work to perform: to destroy or neutralize certain organic poisons. All leucocytes develop first in the glandular system, ere they enter the blood. Why may not the antitoxin possess a stimulating effect on some such glandular organ? Or by being itself the product of the neutralizing effect, exerted by the activity of such an organ upon the toxin itself, may it not be endowed with that same chemical activity? They are points at least worthy of consideration.

Of the attempts to cure certain infectious diseases, as cancer, &c., by the products of the activity of the microbes giving rise to erysipelas and to the formation of pus I have already made mention above.

But all these investigations are still more or less in their embryonic state. We may, however, confidently expect the most surprising discoveries in the near future. (Where will homœopaths be left and what have they contributed to that knowledge?) Step by step the methods are perfected and important results cannot fail to be obtained. Thus to quote in conclusion but one more fact. Probably few, if any, have done of late more for the cure of consumption, than Dr. Karl von Ruck, the Director of the Asheville, N. C., Sanitarium. To his energy our country has to thank the acquisition of the well known Prof. Klebs, who in conjunction with Ruck is perfecting his so-called antiphthisin—Koch's tuberculin deprived of its poisonous ingredients. The results, thus far published, promise well for this new antitoxin of phthisis, which in many cases seems to act better by rectal, than by subcutaneous injection.

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Acute and Subacute Diseases of the Upper Respiratory Tract.

By G. B. Sweeney, M. D., Pittsburg, Pa.

A large percentage of acute and subacute diseases of the upper respiratory tract must necessarily fall first under the observation of the general practitioner.

A desire to help him to acquire a practical, and at the same time a scientific knowledge of these morbid conditions, leads me to offer this paper.

In considering this subject, I shall necessarily traverse ground already quite familiar to the specialist—perhaps nothing that I may say will appeal to him as being unique or of special scientific value.

The ordinary cold is certainly the most commonplace febrile manifestation with which we meet, and warns us that the economy has been thrown out of its proper equipoise.

These simple evanescent colds, running a rapid course, disappearing

promptly with simple medication, or without any treatment whatever, usually characterize themselves by displaying an acute catarrhal condition of some one or more organs to the upper respiratory tract. Owing to climatic influences, occupation or personal habits of the subject, these simple and acute catarrhal attacks are likely to recur frequently and at close intervals until a more or less permanently settled condition takes possession of the organ affected.

At this period we meet with the morbid condition as it passes from the acute to the subacute stage.

Whether this catarrhal condition attacks the extreme upper respiratory tract—causing an acute rhinitis or locates itself lower as a pharyngitis, a laryngitis, or bronchitis—the pathological process which leads up to it is practically the same.

The first stage of the inflammation is characterized by dilatation of the blood vessels, which assume an elongated and tortuous course, together with more or less marked interference of the blood current. At the same time the white blood corpuscles approach the walls of the vessels and finally adhere to them.

Then comes the second stage, when we find the blood vessels rupturing and allowing the white corpuscles to escape. At the same time the blood serum permeates the tissues and appears upon the surface.

Finally this gives rise to the third stage, in which we have excessive cell proliferation in the mucosa proper, together with an unusual activity in all its normal processes both of growth and nutrition.

Thus we find that the first stage is characterized by turgescence with abnormal dryness of the mucous membrane; the second stage is characterized by turgescence, together with profuse watery secretion; while in the third stage, the serous exudation becomes surcharged with mucous and a large number of proliferated cells, converting it into a semi-opaque muco-purulent discharge. This morbid evolution varies but little in whatever part of the respiratory tract it may take place, the variation being influenced by the difference in the anatomical structure.

The turbinated tissue of the nasal mucous membrane, and the diverse thickness of the laryngeal membrane, together with the close attachment to the underlying tissue cause alterations in secretion and nutrition which are characteristic of the different tissues.

The diagnosis in this class of diseases is usually easily made. Even the most superficial examiner could not fail to properly diagnose a case of acute rhinitis or laryngitis, or mistake it for any other morbid condition. The physician is more likely to be culpable for failing to exclude all similar conditions of neighboring organs trying to satisfy his own mind, as well as that of his patient, by declaring him the victim of a cold or the grip. To attempt to cover the ground by prescribing a sudorific febrifuge is likely to be as futile as the effort of him who blindly fires into

space with the hope of hitting a given object. The malaise, alternate chills and fever followed by a sense of suffusion of the mucous membranes will soon be succeeded by catarrhal symptoms which localize the morbid process in the organ affected. When the nasal and post nasal regions are affected, the headache, especially the frontal, sense of dryness and burning succeeded by profuse, watery and scalding secretion, which is later changed into a muco-purulent discharge, can hardly be mistaken for any other condition. When the pharynx or larynx becomes the seat of trouble the dysphagia in the one or dyspnœa and partial or complete aphonia are likely to be added to the above symptoms. Cough, pathognomonic of this condition is present and even indicates by its character the stage which the acute or subacute laryngitis or bronchitis has reached.

While a very large percentage of these affections terminate in recovery, we will do well to be guarded in assuring our patients of prompt and satisfactory recovery.

Acute bronchitis, especially in children, may travel downward and developing pneumonia soon reach a fatal termination. Acute laryngitis may be the precursor of œdema of the glottis, of which I recently saw a child die within nine hours from the time that it was first observed to be indisposed.

But it is not so much on account of immediate contingencies that we should be guarded in giving an opinion.

A rather careless patient making a prompt and satisfactory recovery may by some indiscretion again set up an acute catarrhal condition which he may regard as his original trouble, only temporarily relieved.

For this reason, time spent upon cautioning the patient as to avoidance of exposure as well as the faithful continuance of treatment as long as the medical attendant advises, cannot be amiss.

The question of prophylaxis necessarily figures largely in our consideration of this subject. Our patients promply tell us that they take cold easily and often, however careful they may be to avoid it. And this leads up to that common fallacy that possesses so many otherwise intelligent persons regarding dress. We are apt to find these patients burdened down by an excess of heavy clothing. They say, "I take cold if I don't dress so." Better say, because I dress so. In this manner the heat of the body is constantly thrown off because it is abnormally heated—continuous perspiration keeps the pores of the skin open, rendering the subject susceptible to the slightest draft of air. The discarding of the heavy undergarments, whether of cotton, silk, or wool, and the substitution of light, fine woolen underwear, at the same time adapting the outer clothing, especially wraps or overcoats to the exigencies of the season is of primary importance. Mufflers, chest protectors, especially the chamoise vests, which admit of almost no radiation of heat, should be discarded. Strong durable shoes, with heavy soles, suffice to keep out cold and wet, and at

the same time avoid the necessity for rubbers, which keep the feet in a state of constant perspiration.

The luxurious seal skin cap should be studiously avoided as pernicious on account of the excessive heat producing power.

In this connection, I would speak of bathing, which is equally as important as that of clothing. The hot bath achieves its object in rendering the body clean. Beyond this our patient should expect no further benefit from it, and should avoid it. The tepid, and better, the cold plunge bath, will have a salutary effect. Nothing else can contribute so largely in fortifying the system against the constantly varying thermal condition as the stimulating and invigorating cold bath, which should usually be taken upon rising in the morning. In those persons who through debility, or from other reason, find the plunge bath depressing, and fail to react promptly, a cold sponge bath may be substituted.

As to the important subject of treatment, I will first speak of that which is general and which applies alike to all of this class of diseases.

An acute catarrhal attack of any of these organs stands a fair chance of being aborted, if seen within twenty-four hours of its onset, by the administration of ten grains of quinine, with the same amount of Dover's powder. At the same time, a hot draught of lemonade, together with a foot bath in water which may be rendered gradually hotter after the feet have been immersed in it until profuse diaphoresis has been produced.

A still simpler plan of accomplishing this consists in wrapping the patient in a flannel blanket and placing him in a chair under which a spirit lamp is placed. In ten or fifteen minutes a profuse perspiration will be produced—when enveloped in the same wraps, he retires to his couch.

The perspiration is not to be regarded as the direct object of these measures, so much as the evidence that the body has been surcharged with heat and the equilibrium, which the exposure to cold has destroyed, restored.

Succeeding this treatment, or when such is impracticable, because of not seeing the patient early, smaller doses of quinine, two grains every three hours, combined with small and frequently repeated doses of pilocarpine during the dry catarrhal condition, should be administered. The use of phenacetin, salicin, morphia, and atropia, the latter two often hypodermatically, will frequently supplement the above to advantage.

For the local treatment of acute rhinitis nothing is more grateful than the use of soothing inhalations of medicated steam. These do not necessarily require complicated apparatus for their administration, an ordinary vessel placed over a spirit lamp will render efficient survice. To the hot water may be added camphor, carbolic acid, creasote or the volatile oils. The spraying of the nostrils or throat in the early stage with a solution of cocaine has a decidedly beneficial effect, not only relieving the immediate distress by emptying the engorged blood vessels, but the effect is

evanescent and if repeated frequently enough to produce a lasting effect is apt to be absorbed in toxic quantities. It is in the profuse watery and muco purulent stages of the disease that local treatment is especially indicated.

When there is acid watery discharge from the nose and throat a spray composed of the following will be found to do excellent work. Using of listerine, hydrogen peroxide, distilled extract of witch hazel, and colorless fluid hydrastis, equal parts, instruct the patient to mix a given amount of this with twice the same quantity of warm water. This to be used in the nose and throat with atomizer. After each application a small pledget of cotton should be wrapped around a thin wire and after being saturated with liquid vaseline snuffed freely up each nostril until it is felt to trickle down over the pharynx. This should be repeated every second hour. By the faithful use of this treatment the purulent stage will often be almost completely avoided. Where it is persistent, the addition of a small amount of tannic acid will be indicated. When the disease is found to have already passed into the subacute stage, I have found a spray containing tincture iodine, acid tannic, glycerine and water, efficient.

In treating acute laryngitis the following treatment will be found quite efficatious:

A prompt, brisk saline cathartic is given, granular effervescent sulphate of magnesia preferable, to be followed by a hearty meal. When the bowels have been freely moved, an eighth grain dose of morphiæ sulphate is given hypodermically, and the patient directed to suck small pieces of ice until the dryness of the throat, caused by the morphia, has disappeared. Inhalations of camphorated steam to be used every half hour.

In the case of singers, public speakers, or those accustomed to use the voice to an unusual extent, absolute rest of the organs should be enjoined. Especially should all attempts to abort the attack, by the use of strong solution of nitrate of silver or other caustics, be avoided. In any stage of the disease this can have only a deleterious effect. In the early dry stage, when an attempt to abort the attack has failed, secretion should be stimulated by the use of ammonia muriate, and iodide of potash, the latter will best be administered in a few large doses, twenty to thirty grains administered at short intervals until effect is produced.

The ammonia may well be administered in five grain doses every three hours, the patient being instructed to take it in a copious draught of warm water.

The laryngeal mirror will warn us of tendency toward œdema. Free and prompt scarification is the only procedure that can be relied upon for relief of this dangerous condition.

Finally with reference to the paralysis following acute as well as subacute and chronic laryngitis, I have frequently observed these especially in persons suffering from influenza. But little concern need be felt in

the most of these cases, as the paralysis usually clears up promptly without direct medication.

Electricity is thought by some to exercise a beneficial effect. In the treatment of acute as well as subacute bronchitis, there are certain indications to be met in all cases. The morbid irritability of the inflammed part is to be allayed, the vascular hyperæmia of the bronchi must be relieved thus avoiding the tendency to excessive exudation and subsequent dyspnœa, the renal and cutaneous secretion must be maintained and nervous irritability allayed.

Every effort should be made to hasten the removal of such plastic exudations as may have caused thickening and induration of the inflamed structures and to avoid tendency toward purulent degeneration or supperative action in the inflamed part.

While the above indications are to be met in all cases, yet our treatment must be governed to a certain extent by the constitution and age of the patient, as well as the nature and extent to which the pathological process has advanced. In the young and vigorous subject, nothing will so quickly check the first stage of acute bronchitis as liberal abstraction of blood. Leeching over the chest, especially in children may take the place of venesection, or dry cups used freely will be highly beneficial. At the same time a combination of codeine sulphate, ammonia muriate, tincture of veratrum, with liquor of acetate of ammonia in suitable proportions, according to age of patient, will do good work. For a coated tongue, high colored urine, sense of soreness and oppression in chest a full dose of calomel, followed in four or five hours by a brisk saline cathartic, will give relief, by producing moist rales, easier breathing and some expectoration.

The Coexistence or the Complication of Anal or Rectal Fistular with Phthisis Pulmonalis.

Its Pathology, Treatment and Cure, Considered with Reference Only to Such Connection.

By William Bodenhamer, M. D., LL.D., New Rochelle, N. Y.

The attention of the writer has just been called to this subject, by reading a very interesting article upon "Fistula in Ano, as a Complication of Pulmonary Tuberculosis," by Edward F. Wells, M. D., of Chicago, contained in "The Charlotte Medical Journal" of October, 1895, p. 428. This circumstance reminds the writer that about half a century ago, he began to pay some attention to the highly important subject of the relation of pulmonary phthisis to anal or rectal fistula, and he embodied his views in a few published articles, the last of which appeared in the

"Medical Record" in 1886 Since then he has not seen anything to cause him to change his opinions in relation to it.

The subject of the association of anal or rectal fistula with phthisis, and the conflicting opinions concerning its treatment or non-treatment, when found thus connected, are even now being discussed *pro et con*, and the writer feels disposed on this occasion to give some of the views he early entertained concerning it, to the profession for what they are worth.

The consideration of the co-presence, or the complication of anal or rectal fistula with phthisis, involves a most interesting and important point regarding its pathology, treatment and cure; and it will be perceived that this subject has engaged the minds of some among the ablest men of our profession.

The writer will now introduce the subject, by remarking that fistula in ani or in recti, when not connected with morbid conditions of the lungs, intestines or other viscera, equally incurable and fatal, may be regarded as one among the most simple and satisfactory subjects of surgical practice. Indeed, it derives nearly all its difficulties and dangers from diseases that complicate, or succeed it.

Anal or rectal fistula may exist in a phthisical patient without either disease becoming immediately complicated; for it is possible for the two diseases to exist in the same patient at the same time without either becoming involved in the other. Sooner or later, however, they may become involved to such an extent that neither can be cured, The two diseases may also be complicated, and stand in the relation of cause and effect, as they doubtless do in the majority of instances. Indeed, to repeat, an anal or a rectal fistula may be associated with phthisis in two different characters—first, as a contemporaneous, but independent accident, and, secondly, as a consequence. Both diseases, too, may be pro duced by the same cause at the same time, that is, the same agent, or low condition of the system which predisposes to the one will aid in the development of the other.

If the writings of the authors who have more especially studed the subject of anal or rectal fistula, be consulted, it will be found that the earliest of them make no allusion to the disease being in any way connected with pulmonary tuberculosis; and, although the more modern writers have adverted to the co-presence of the two diseases, they have for the most part, considered the phthisis in the light of a cause, instead of the consequence of the anal or rectal fistula.

Now, it must be admitted by all accurate observers, who have had much experience in the treatment of anal or rectal fistula, that it sometimes coexists with phthisis without exerting any favorable or any unfavorable influence upon the latter, the two diseases being, as it were, independeut of each other; and it must also be admitted that anal or rectal fistula is much more frequently complicated with phthisis, and is often the result

of it, and when this is the case the two diseases may mutually react, one upon the other, but unfavorably to each.

The writer will now show that not only is the frequency of the connection of these two diseases denied, but when it does occur, the influence which one exerts over the other, is also denied. As a confirmation of this, the writer will quote from the classical works of Laennec, Andral, Louis, Clark, Quain and Gross: M. Laennec says: "It is a common opinion, strengthened by the adoption of it by M. Borden, that phthisical subjects are particularly liable to fistula in ano, which helps to protract the termination of the disease. I have seldom observed this complication, and when it existed, it has appeared to exert no influence over the progress of the case." (*A Treatise on the Diseases of the Chest, and on Mediate Auscultation.. Translated from the French by John Forbes, M. D., p. 294, 8vo, New York, 1830.*)

M. Andral says that, he had met with only one instance of fistula in ano, in eight hundred patients, manifestly affected with phthisis in different stages, and he expresses a decided judgment against the commonly entertained opinion that this connection is frequent. (*Clinique Medicale de Leminier. Tome IV, 8vo, Paris, 1823.*)

M. Louis says: "I have not been any more successful than M. Andral, and I can readily account for the common error on this subject of fistula in ano, in phthisical subjects. by the habit, still adopted by medical men, of making analysis of their cases by the aid of memory—that is, of attempting impossibilities, and obstinately refusing to count in cases where it is obvious that that process cannot be dispensed with." (*Pathological Researches on Phthisis, etc. Translated from the French by W. H. Walshe, M. D. Second Edition, 8vo. London, 1845.*)

The late able and lamented Sir James Clark also says that, although he has often met with fistula in ano, he has not been able to trace any connection between it and phthisis, further than its probable dependence on abdominal plethora, which so frequently precedes the latter malady, (*A Treatise on Pulmonary Consumption, p. 162, 8vo, London, 1835.*)

Sir Richard Quain says: "The belief which has long commonly prevailed, that there is a proneness to the formation of fistula in ano among porsons laboring under pulmonary phthisis, has, like several other opinions resting on general impression, been shown not to stand the test of the strict observation of facts." (*On the Diseases of the Rectum. Second Edition, p. 124, 12mo. New York, 1855.*)

Dr. Gross says: "It is a pretty common opinion that phthisis frequently gives rise to anal fistula, thus establishing, as it were, a sort of an issue which by divesting from the affected organs, retards, as is supposed, the progress of the original malady. Respectable as the authority certainly is by which this notion is sanctioned, it is entirely at variance with the experience of every intelligent observer of the present day. The cir-

cumstance, I am convinced, is in a great measure, if not wholly, accidental; at any rate, I can truly say that it has rarely occurred in my practice, nor have I witnessed it more than three or four times in my dissections of phthisical subjects." (*Elements of Pathological Anatomy. Second Edition p. 461. Imp. 8vo, Philadelphia, 1845.*)

The following is an extract from a letter received from the late Dr. W. A. McDowell, who, during his eventful life, treated more cases of consumption, than any other physician in the Southwest. His letter is dated Evansville, Ind., October 3d, 1851:

Dr. Bodenhamer: Dear Sir: "Yours of the 29th ult., relative to complications of fistula in ano with phthisis, was duly received. That the complication is frequent, and that the fistula exerts a salutary influence over the phthisis, I believe is the general impression of the medical profession. Yet, I am not able to furnish you any valuable personal experience on the subject, never having met with the complication but twice in the whole course of thirty-two years' practice. In one of these caees, both diseases were cured, the fistula first; in the other, both diseases continued unto the death. Yet the well known irregularity of the bowels in phthisis, the relaxing influence of diarrhœa, and the alternate irritation of constipation, would seem necessarily to conduce more than ordinarily to anal ulceration; but the idea of any beneficial influence from this or from any other intestinal irritation, in the treatment of a disease in which so much depends upon the condition of the digestive functions as phthisis does, is unexplained, and I think inexplicable. If the revulsive influence of a counter-irritant were necessary, I should prefer to establish it upon any other part of the body, etc."

Statistics.—With regard to the question of the frequent or the infrequent occurrence of anal fistula with phthisis, the writer will cite Mr. Allingham, of St. Mark's Hospital of London, who, in a very able article on "Fistula in Conjunction with Phthisis," says: "For my own part, I am quite convinced that a very considerable percentage of fistulous patients have more or less tubercular lung affection. I have endeavored to find out what the percentage is, and have carefully gone over a period of nine years in private practice, from 1871 to 1880, and find that, out of 1,632 cases of fistula seen by me during that period, 234 had phthisis, either active or latent." (*Fistula, Hæmorrhoids, Painful Ulcer and other Diseases of the Rectum, p. 57, 8vo, London, 1880.*)

According to an estimate, the writer himself made in 1860, with special reference to this very question, he found that, out of 960 cases of anal fistula, which came under his own immediate observation, during a private practice of nineteen years, that is, from 1841 to 1860, seventy cases were accompanied by well marked phthisis in its several stages, from its inceptive to its advanced or confirmed stage. The anal fistulæ in fifty-five of these cases, seemed evidently to have been the result of the phthisis

It may be remarked here, that the discrepancy with regard to the ratio of such cases, which has been noticed, may perhaps be owing to the fact, that those surgeons who treat the diseases of the rectum as a specialty, are apt to see more of them, and notice them more particularly than the general practitioner, or those who have declared that they have seldom seen them.

The Relation Between Anal or Rectal Fistula and Phthisis.—The next question is: Is there any relation or connection between anal or rectal fistula and phthisis pulmonalis, when these two diseases coexist in the same patient, and if so, can it be explained? Some authors maintain as has already been shown, that no such connection exists between them; and, if there is such a relation they deem it inexplicable. Now, that there is such a relation or connection between the two diseases, when thus associated, is a point in pathology which may easily be traced, explained and established. It is well known that there is a large amount of the cellular membrane which invests the inferior extremity of the rectum; that this tissue in this vicinity has a large number of veins; that these veins, in the advance stage of phthisis, can have but little adventitious support, in consequence of the great absorption of fat in such cases, the emaciation of which is always strongly marked in the adipose cellular membrane and muscles. Tubercular deposits in the lungs too, must in a greater or less degree interfere with the return of the blood from the veins; and the constant impulse communicated to the anal region by coughing must also greatly tend to the production of anal abscess and anal and rectal fistulæ. Indeed, disease of the lungs, and especially tubercular degeneration, is that which most commonly gives rise to abscess and to fistulæ; and this may also be accounted for by the well known tendency which exists to ulceration of the intestines in phthisis, or to retarded venous circulation, as already stated. From these several considerations, and the proneness to suppuration in the cellular tissue of the rectum, we can at once account for the connection, as well as the frequent occurrence, and concurrence of these diseases with phthisis pulmonalis.

Are Anal or Rectal Fistula Natural Emunctories?—The writer will now quote the opinions of some distinguished authors who consider anal or rectal fistula, when coexistent with phthisis pulmonalis as natural emunctories, and should not therefore be treated or interfered with in any way, but let alone, believing that these two diseases are in sympathy and have a mutual dependence upon each other. As a proof of this they say that when the fistula first forms the lungs are always at once relieved. The phthisis is immediately suspended in its destructive course, and as long as the fistula keeps open and continues to discharge freely so long is the patient respited. When these authors speak of an operation, they mean the knife operation.

M. Velpeau says: "Experience proscribes the performance of the

operation for fistula in ano, in consumptive patients, first, because in most instances the fistula moderates the progress of the pulmonary disease; second, because it is usually caused by the ulceration of one of the thousand tubercles with which all the organs are then cribbled; third, because the wound rarely heals up, but suppurates abundantly, and reacts in an injurious manner upon the ensemble of the organism; and, fourth, because if by chance it closes up, it is remarked that the pulmonary affection, which was momentarily suspended, rarely fails to become thereby aggravated." (*Mott's Velpeau, Vol. III, p. 1131, Imp. 8vo, New Rork, 1837.*)

Dr. Bushe says: "From what we have said when treating of stercoraceous abscesses, it is very apparent that a great many of them depend upon disease of the lungs; therefore, when they degenerate into fistulæ, we should not operate on them, else their healing will give rise to an increase of the pulmonary disorder and curtail life. There are also other sympathetic fistulæ which it would be improper to meddle with, as those depending upon disease of the uterus and spine, as well as those which occur in the last stages of other organic diseases." (*A Treatise on the Malformations, Injuries and Diseases of the Rectum and Auus, p. 249, Imp. 8vo, New York, 1837.*)

M. Ribes observed, in his inimitable essay that, according to his experience, as well as that of others, the fistula in ano, in phthical subjects. should remain undisturbed, and that it is not only useless, but even dangerous, to subject such patients to the operation." (*Memoires de la Societe Medicale d'Emulation de Paris. Tome IX, p. 116, 8vo, Paris, 1826.*)

Sir Astley Cooper says: "Often, before a person perishes from phthisis, he has a fistula in ano, and this is the reason fistula is considered as a dangerous disease, although in reality it is not so, but it is the consequence of the more important disease which destroys life. The surgeon often brings discredit upon himself by operating on these cases in the last stage of phthisis, when no operation ought to be performed, and when it is impossible the disease can be cured; therefore that death, which is the result of pulmonary disease, is falsely attributed to the fistula in ano." (*Lectures on the Principles and Practice of Surgery. Edited by Mr. F. Tyrrell, Esq., 5th Edition, p. 294, Imp., 8vo, Philadelphia, 1839.*)

Mr. Colles says: "Are there any circumstances, general or local that should deter us from venturing or relieving a fistulous patient who is also suffering from phthisis, by the knife operation? There are both. I mentioned to you that experienced proved, in particular instances of fistula in ano, a connection or sympathy between the local disease, and grave pulmonary affections; now, if you meet a case of this kind never attempt to operate, if you find on inquiry, that the patient had a chest affection for some time, and that there came on the local complaint about the rectum and that on its appearance, the other complaints were relieved; any oper-

ation that you perform for that man's fistula would hasten his death." (*Lectures on the Theory and Practice of Surgery. Edited by Mr. S. McCoy Esq.. p. 275*, 8vo, *Philadelphia*, 1845.)

M. Lisfrance is of opinion, that it is very improper to operate for anal abscess or for anal fistula, in phthisical subjects, for that death from, phthisis in all probability will succeed the cure. He further states that he has often seen natural emunctories prolong the life of phthisical patients for a greater length of time than those established by art. (*Journal des Connaissances Medico-chirurical*es *de Paris*, 1835.)

It will be perceived, from the very able and distinguished authors the writer has presented, and many more might be named, that they fully confirm the popular prevailing opinion in the profession, that anal fistula, when associated with phthisis, are considered as natural emunctories, and highly beneficial to the lungs; and that it is not at all justifiable to attempt the treatment or the cure of the fistulæ in patients suffering from phthisis, or in those predisposed to it.

It was this theory which induced the celebrated Baron Heurteloup, of Paris, a number of years ago to believe that artificial fistulous drains or exutories would be equally as beneficial to consumptives as the spontaneous or natural ones represented by the fistulæ; and it was this belief that caused him to practice, at the Hospital de la Charite, the operation of establishing artificial fistulæ in tuberculous patients in whom no anal fistula existed. This practice in his hands, however, met with no success; the derivative effect of the anal irritation made no decided impression upon the lungs. Those, however, who believe in the beneficial effects of the natural fistulæ in phthisical patients, do not admit that artificial substitutes will ever answer any good purpose. The benefit, however, resulting from the establishment of an artificial drain does not depend upon the large quantity of the discharge, but upon the degree of irritation that is caused and kept up upon the surface; hence, in the opinion of the writer, artificial drains are much better than the natural ones, so called, as they are completely under control, and may be located and regulated exactly to suit the nature of the case. Had Baron Heurteloup established an exutory upon the chest instead of a seton in the anus of his phthisical patients, he might have benefited them more. It is strange that any intelligent physician would ever think of establishing a drain in the anal region to relieve phthisis.

The plausible theory that an anal or rectal fistula is salutary and a derivative remedy in phthisis, and must be let alone, as contended for by the highest authorities, is, in the opinion of the writer, a serious error, and has proved so in numerous instances. It is true, the writer has seen patients in the advance stage of phthisis apparently benefited on the first appearance of an anal or rectal fistula; they were unexpectedly, as it were, restored to better health, and their pulmonary affection became quiescent

for the time being; but the improvement, proved not to be permanent; it did not last long; the discharge from the fistula either coutinued to increase, or it dried up, and the patients, sooner or later, sunk. As a general rule, anal or rectal fistula greatly aggravate the pulmonary affection by impairing the constitutional powers, especially if attended by a copious discharge of pus and much irritation. The principal indication in all such cases is to build up, not to deplete.

The writer has never observed a case of phthisis, in any stage, cured by anal or rectal fistula, or even the life of such prolonged to any length of time, and according to his experience, it never does any permanent good in any instance. All such cases should, therefore, have the advantage which a proper and judicious treatment offers, recollecting that anal or rectal fistula may more frequently be the primary cause of phthisis, than the cure or the mitigation of it. The writer has yet to see the first bad results from attempts at curing both diseases in such patients by proper treatment. It is true that in all cases in which the fistula appears in the last stage of phthisis, which is not uncommon, when all hope of the patient's recovery is gone, it would be improper, as well as useless, to attempt its cure, if, indeed, it could then be done; that is, if a phthisical patient with an anal or rectal fistula, in whom the phthisis has made rapid and serious inroads upon the respiratory organs, especially if attended by hectic irritation, profuse sweats, cough, colliquative diarrhœa, etc., and the fistula not painful, distressing, nor discharging too freely, no prudent surgeon would institute such operative proceedings for the treatment of the fistula, that would in the least be calculated to shock the nervous system and to impose an additional burden upon the vital functions.

Differential Diagnosis.—Some of the diseases of the pelvis or anal region, especially those which appear in the form of chronic, cold, symptomatic, critical or constitutional abscesses, as they are severally so designated by different authors, are sometimes attended, in weak and emaciated subjects, by hectic fever, night sweats, cough, expectoration and great physical and mental depression. Such cases are sometimes diagnosticated as phthisis, when at least no organic disease of the lungs really existed. In such the abscess or the fistula, if either exists, is let alone, and is allowed to reduce the vital powers of the patient by keeping up a copious and constant drain upon the vascular system, and a continued irritation of the nervous system, respectively, so that in course of time the lungs also become seriously affected. This is no imaginary occurrence, as the writer could here report several such cases, which came under his own observation.

Chronic Bronchitis.—Chronic bronchial catarrh sometimes simulates tuberculous phthisis so closely that it is well calculated to deceive, especially if attended, as it sometimes is, by persistent cough, expectoration, loss of strength and color, shortness of breath; and in some cases follow-

ing influenza, hectic fever, night sweats, and diarrhœa. The writer has successfully treated a number of cases of anal abscess and of anal fistula, which were associated with chronic bronchial catarrh, and which had been previously pronounced confirmed phthisis, and all treatment of the abscess or the fistula interdicted on penalty of speedy death from phthisis. A correct diagnosis in all such cases is of the highest importance, and should be sought for early, before ulceration and other serious complications occur, so that the treatment may prevent these; but a minute and careful physical exploration of the chest, so far as pulmonary tuberculosis is concerned, will never fail to give the correct diagnosis and to disclose the nature of the case.

The writer now deems it important here to state. that the old and ordinary method of obtaining the diagnosis of tubercular disease, which he had adopted and practiced many years ago, as briefly shown above, is now declared to be obsolete, and that it is completely substituted by other methods, pre-eminently by that of Koch's bacillus; for it is conceded that the bacillus of Koch is present in every case of tuberculosis; hence it constitutes the pathognomonic evidence of that disease, regardless, however, of the disputed question, whether the bacillus is either the cause, the mere attendant, or the effect of the disease.

Tuberculous Disease of the Rectum.—It is said that tubercles in the lungs are essential to their existence in other organs—that is, that they are always developed in the lungs first. But this is not always so, for the writer himself has, in several instances, found them, or what are commonly called tubercles, in the glands of the rectum, when their existence could not be diagnosticated in the lungs. They seemed in these instances to have been developed in the glands of the rectum first. As a general rule, however, whenever they are developed in any one organ, they invade all others; doubtless originating in the lungs in the majority of instances.

Tubercular degeneration of the rectum requires prompt and energetic treatment, or it will speedily result in ulceration and fistula; and it is the disease commonly called consumption of the bowels, and often attended by many of the symptoms of tubercular phthisis, which it very much simulates, and in which it ultimately terminates, unless timely arrested. Here the disease originates in the rectum, but subsequently terminates in the lungs, the rectal disease being the primary affection. On the contrary, however, it is well known that in protracted phthisis, the rectum becomes greatly attenuated, all its coats being thinned and wasted, and sooner or later diarrhœa sets in, and patches of ulceration of the mucous membrane take place. These ulcers vary in form and size, being mostly circular depressions in the mucous membrane, and not large; when they occur low down, between the internal and external sphincters of the anus, they are almost certain to result in abscess and in fistula. These ulcerations

in the rectum are by no means uncommon in phthisical subjects, and are, with their concomitants abscess and fistula, one of the complications of phthisis. Here the primary disease is phthisis, and the ulceration, the abscess or the fistula, whichever obtains, is the effect or the consequence of it. This certainly and plainly shows the true connection between the two diseases. There are, however, other ulcerations of the rectum, almost identical in character with those already described, which are independent of phthisis, being the result of other chronic affections, such as the ulcers which are known to occur in the last stages of low fevers, in chronic dysentery and diarrhœa, or in persons of a lax, lymphatic and scrofulous constitution. Such ulcers, if not cured, are liable, sooner or later, to result in abscess and fistula ani, and ultimately in phthisis, especially in those predisposed to it.

Treatment.—Now, the most important and practical point for the surgeon to consider in this controversial affair, is not, whether anal or rectal fistula and phthisis are seldom or often found in the same patient, or whether when thus found, there is an intimate or no connection between the two diseases; but it is whether anal fistulæ, when found in phthisical patients, should be let alone or treated, and if treated, by what method. These are the important points.

Before treating a case of anal or rectal fistula, the surgeon should never neglect to ascertain to a certainty, whether or not, pulmonary disease is present in the case. If phthisis, or a strong predisposition to it exists, which a careful physical exploration of the chest will always disclose, the treatment, if any, must be regulated to suit the case.

It is an established canon of surgery that, in order to cure an anal or rectal fistula, it must be cut, that is, divided by the bistoury; and it is also equally a law of surgery that, when an anal or rectal fistula is complicated with phthisis, it must not be cut, but let alone. Now, in accordance with this theory of non-treatment in such cases, the patient is advised not to have anything done for the fistula, as any interference with it, or the cure of it, would only accelerate the pulmonary affection, and hasten his death. It is strange, passing strange, that with the abundant resources of the present highly advanced stage of surgery, all surgical treatment of the anal or rectal fistula, in such cases should be proscribed. The writer readily admits that to attempt to cure such cases by the knife operation, would be highly improper, and it was doubtless in reference to this operation alone, that this opinion was first advanced, and not to other proper and judicious surgical measures, of which there are certainly many such.

The practice of non-treatment in the cases under consideration, as advocated by the authors, the writer has cited, and by others equally distinguished, is, however, happily and surely becoming antiquated. There is not one good reason to be urged in its favor, except in those cases in the last stage of phthisis. The views of authors generally upon this sub-

ject, seem to be anything but clear and sagacious; although able and highly distinguished, as they truly and certainly are, they, however, too often allow themselves to adopt certain fanciful theories of disease, and strive too much to confine nature within definite bounds and arithmetical calculations.

In the several cases of phthisis, the writer has named, which are at all proper for surgical treatment of the anal or rectal fistula, he prefers the operation by ligature, to that by the knife; it has never been productive of any injury in his hands, but on the contrary, in producing the most happy results, as he could, had he the space, illustrate this article by a large number of well authenticated cases. He is, therefore, decidedly of the opinion, that if any surgical operation for the fistula be adopted, it should not be by the knife, but by the ligature; for the method by the ligature is much safer and judicious, for, if it does not tend to cure the phthisis, it, at least, does not accelerate its progress; whereas, the method by the knife in such cases must prove injurious in the highest degree, both in its present and future consequences. We are, therefore, neither justified nor warranted, by experience or reason, in operating with the knife in such cases.

The knife operation requires the patient to be placed under anæsthesia, which is contra-indicated in phthisis; it also requires the patient to be confined to his bed and his room for a longer or shorter period; whereas, when the ligature is employed no confinement is required; he can be up and about, and in the open air all the time. This is of the greatest importance in the treatment of phthisical patients.

The ligature, if properly employed, does not cut or divide the fistulous sinus at once, as the knife does, but it works its way through the tissues by a process of ulceration and suppuration, and not by a cutting process; indeed, it does not cut at all in the sense of the knife operation. It must be admitted, too, that the process is a healthy one, by all who understand the *modus operandi* of it and that of setons and issues. The writer has had abundant evidence, both from clinical observation and physiological experiment, of its great utility in the particular cases he has mentioned.

In operating by the ligature, the tightening should be effected by twisting instead of by a knot, for a knot cannot be regulated nicely or exactly; it is either made too tight, and causes too much irritation and pain, or it is not made tight enough, and does not succeed well. The process, too, of tying the knot frequently, is attended with trouble and pain; whereas, the daily twisting of the ligature, is easily made and exactly regulated, so as not to be too tight and painful, yet at the same time quite efficient.

The writer never hesitates to operate by the ligature in these cases, unless the lung affection is very far advanced; and even in such cases no

harm to the chest difficulty will result from the ligature properly employed, or used as a seton. But in extreme cases the fistula should not be laid open, either by the ligature or by the knife, for if this is done, the divided parts might not heal, and the patient left in a much more miserable condition than before, especially if he was suffering from diarrhœa. By the use of the ligature, however, this serious mistake need never occur, for the process of tightening must be conducted slowly, as a test, so that if granulation and healing did not promptly follow in the wake of the ligature, which can easily be ascertained from time to time, the tightening of the ligature, could at once be stopped, and the continuity of the sphincter ani and parts preserved, the ligature either being removed or used as a seton. Indeed, if the surgeon should find, by the slow use of the ligature in such a case, that the sinus was not filling up and healing, and the patient not improving, but getting worse, he could at any time stop its use without doing any harm whatever. This cannot be done when the knife is used.

Ectopic Gestation.

L. Grant Baldwin (Brooklyn Medical Journal, November, 1895,) publishes an interesting paper on this subject based on his personal observations, in which he calls attention to some points not usually mentioned in articles on this subject, and cites cases to prove his views.

He does not believe that there is necessarily tubal disease antedating its occurrence, i. e., disease which can be diagnosed, and that it may occur purely accidentally, although in a fair proportion of cases there is probably tubal disease.

He indicates a belief that *all* cases are tubal or interstitial originally. The diagnosis before rupture, is well nigh impossible, due to a lack of symptoms. After rupture the diagnosis should be made, the only condition likely to confuse being a ruptured pyo-salpinx, and to prove this he cites some interesting cases which certainly show a remarkable similarity as to sympto-neatology. He calls attention to the fact that rupture may, and often does, occur without the classical symptoms of shock, indeed one of his cases came to his office in the street cars some days after rupture into the peritoneal cavity.

In treatment the author would advise surgical interference to the exclusion of electricity and kindred methods. In cases of rupture into the broad ligament he would give the chances of the child reaching viability due consideration, consistant with the mother's safety. Should he make a diagnosis before rupture he would advise immediate removal. When called to a case that has ruptured, he advises against the ordinarily advised practice of giving stimulants of different kinds and by different methods.

He considers that the subject of treatment of the placenta at term has received more attention than need be, but that each case should be treated according to the conditions presenting; the hemorrhage should always be controlled by pressure or ligature.

PYROZONE.

(3 per cent. Aqueous Solution.)

THE name PYROZONE is applied by the manufacturers to absolute H_2O_2. The 3 per cent. aqueous solution answers to the tests of the new U. S. Pharmacopœia, with the additional advantages that it is pressureless and permanent. losing none of its energy until used. It is far superior both in exactness of strength and keeping qualities to the usual strength of peroxide of hydrogen. Dr. Bansford Lewis says: "Pyrozone is certainly an advanced step."

DIURETIN.

(Knoll)

THIS valuable diuretic has been extensively used by a great number of prominent practitioners, among whom may be mentioned DuJardin-Beaumetz, Masius, Demme, Erb, Keyes, Babcock, Herrick, Henderson and many others, in the treatment of **Dropsy, Heart Disease, Scarlatinal Nephritis, Rheumatism,** and as a general **Diuretic.**

TARTARLITHINE.

A New Remedy for GOUT and RHEUMATISM.

A prominent Physician writes: "I have used Tartarlithine in the treatment of about a dozen cases of my own with results that are little less than wonderful. The characteristic feature of its action is the rapidity and promptness with which patients improve under its use. An improvement is noticeable within 24 hours."

EXALGINE.

(Analgesic.)

HAS been extensively employed in **Rheumatism, Neuralgia, Cephalalgia,** etc., and in the treatment of **Pain** generally.

Exalgine is largely used at the present time in Germany in the treatment of **Chorea,** for which it was originally recommended by MONCORVO, and extensively used by LOWENTHAL, of Berlin, and DANA, of New York. The dose should not exceed 2 or 3 grains three times a day at first.

Literature on the above, also on Albolene and Albolene Atomizers, Pyrozone Atomizers Comp. Stearates, Pulverflators, Mck. & R. G. C. Pills, Fluid Extracts, &c., furnished on applying to

McKESSON & ROBBINS,

Manufacturing Chemists, - - 91 Fulton Street, - - NEW YORK.

The Alimentation of Infants by Means of Starchy Foods.

At a meeting of the Berlin Medical Society, Dr. Heubner reported his experiments in this direction. It is usually claimed that new born children cannot digest starches at all. This the author states is not the case. The ferment capable of digesting starch can be recognized in several glands at the age of three weeks. Experiments were made with rice starch. Children about fourteen weeks of age were given rice starch and the stools analysed. This showed that a percentage of the starch was absorbed. It is especially insisted upon by the author that this should not be taken to mean that children can be exclusively nourished with starchy foods. They require the albumen and fat so sadly lacking in the proprietary infant foods, and these latter also often contain cane sugar in large quantities, which is especially liable to fermentation. Starch if used as an adjunct to the breast or cows' milk should be that of rice, for the granules are smaller and more easily digested. A six per cent. solution is the best strength. Children do not digest thick starchy food; it must be dilute.

These facts are interesting from an exacts cientific standpoint, but it would be a great misfortune if they should be misunderstood and serve only to benumb the awakening consciousness of the medical prosfenois of the great evils of the early use of starchy foods in infancy.

Syr. Hypophos. Co.--Fellows.

Containing the Essential Elements of the Animal Organization—Potash and Lime;

The Oxidizing Agents—Iron and Manganese;

The Tonics—Quinine and Strychnine;

And the Vitalizing Constituent—Phosphorus; the whole combined in the form of a Syrup with a SLIGHTLY ALKALINE REACTION.

IT DIFFERS IN ITS EFFECTS FROM ALL ANALAGOUS PREPARATIONS; and it possesses the important properties of being pleasant to the taste, easily borne by the stomach, and harmless under prolonged use.

It has Gained a Wide Reputation, particularly in the treatment of Pulmonary Tuberculosis, Chronic Bronchitis, and other affections of the respiratory organs. It has also been employed with much success in various nervous and debilitating diseases.

Its Curative Power is largely attributable to its stimulant, tonic and nutritive properties, by means of which the energy of the system is recruited.

Its Action is Prompt: it stimulates the appetite and the digestion, it promotes assimilation, and it enters directly into the circulation with the food products.

The prescribed dose produces a feeling of buoyancy, and removes depression and melancholy; *hence the preparation is of great value in the treatment of mental and nervous affections.* From the fact, also, that it exerts a double tonic influence, and produces a healthy flow of the secretions, its use is indicated in a wide range of diseases.

NOTICE--CAUTION.

The success of Fellow's Syrup of Hypophosphites has tempted certain persons to offer imitations of it for sale. Mr. Fellows, who has examined samples of these, **finds that no two of them are identical,** and that all of them differ from the original in composition, in freedom from acid reaction, in susceptibility to the effects of oxygen when exposed to light or heat, **in the property of retaining the strychnine in solution,** and in the medicinal effects.

As these cheap and inefficient substitutes are frequently dispensed instead of the genuine preparation, physicians are earnestly requested, when prescribing the Syrup, to write "Syr. Hypophos. **Fellows.**"

As a further precaution, it is advisable that the Syrup should be ordered in the original bottles: the distinguishing marks which the bottles (and the wrappers surrounding them) can then be examined, and the genuineness—or otherwise—of the contents thereby proved.

Medical Letters may be addressed to

Mr. FELLOWS, 48 Vesey Street, NEW YORK.

The Charlotte Medical Journal.

E. C. REGISTER, M. D., J. C. MONTGOMERY, M D.,

Editors and Publishers,

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———SUBSCRIPTION, $2.50 PER YEAR.———

Articles intended for the Original Department of the Charlotte Medical Journal will be accepted on y with the understanding that they are contributed to it exclusively.

THE BATTLE OF CLUBS.

A very interesting conflict is occurring in England just at present between the medical men and the beneficial societies. or medical clubs, "The Battle of Clubs" it is called by the journals. It seems that these societies agree to furnish medical attendance to the members at a very low rate per annum and not only to the members but to their wives and children likewise. The consequence is that in some towns more than half of the inhabitants obtain medical care for almost nothing, and the private doctors are obliged to leave or suffer greatly in pocket. The London Lancet has appointed a commission to investigate the subject, and the result of his studies are published from time to time. The agents of the beneficial companies have it in their power to ruin the business of the doctors engaged by the company by directing the would-be patients to others. The rates charged are often not more than 20 cents per month, and persons well able to afford the regular doctor's services make use of the company's doctor. On the other hand it must be admitted that doctors have charged high rates to people unable to pay, and have been responsible in a measure for bringing on these medical clubs.

In this country there are several beneficial organizations that provide medical attendance for the members, but not for their families ; one large organization paying its physicians 25 cents per month for each member. No doubt the ideal state of things would be when all physicians are paid by the year, and when they will endeavor to prevent disease rather than give their whole time to curing it.

This medical club business is only the beginning of what seems to us an important movement, and one which will have its chief support in England where so much that is socialistic in tendency is in practical operation.

We refer to the governmental treatment of the sick, through physicians employed by the government.

More and more are our cities undertaking the work of caring for the sick. Such contagious diseases as diphtheria, scarlatina and small pox, are treated in municipal or city hospitals; consumption and typhoid fever are under city control; vaccination is performed by city officers. The insane are cared for by the State; the epileptic are in some States also provided for in State hospitals. Bacteriologic laboratories manufacture remedies and make chemical and biologic analysis; and, of course, the physician finds his sphere of action constantly growing more limited. We will not say anything of the numerous private hospitals and dispensaries which rely largely on the appropriations furnished by the State and which, in some of our cities, treat more than one-half of the population. One large hospital in a metropolis we know of advertises to furnish medical treatment and hospital attendance to any adult whenever he is in need of it if he becomes a member and pay 50 cents a month. This hospital receives State aid and is well endowed. Its physicians, of course, serve gratuitously, and for every vacancy on the staff a dozen applicants are in waiting. These big professors would not think of treating the public at 50 cents per month, yet that is what they are in reality offering to do.

The physicians of this country must soon come to some understanding on these subjects. Either the number entering the profession must be limited, or the men serving in hospitals must demand a return for their work or the hours of work must be shortened so as to give more employment to others.

We are members of a trade union, one of the oldest trade unions in existence. We have been able to get strong laws enacted against scabs —Quacks, we call them—and now in England they are using the "boy cott" against those who employ "club doctors," who can afford to employ the regular men. And so we might work for shorter hours and restriction of apprentices just as the other labor organizations do. The subject is one that takes on an increasing importance with each year, and it would be well to invite discussion on it.

FAKE DEVICES FOR RESTORING IMPAIRED HEARING.

Laital intelligence apparently seems to exercise very little if any rational judgment in scrutinizing the so called intrinsic qualities of all medicines, processes or apparatuses which, for mercinary reasons, have been gazetted as the miraculous, mysterious means of curing phthisis, of enabling the paralyzed to walk and the deaf to hear.

This same credulous belief in the virtues of the aurophone, artificial ear drum, etc., as lauded by the public press, has not, unfortunately, been ubiquitously eradicated from the professional mind; no, not even by a

modern medical education, and for these reasons pertinency must be sufficient excuse for reference to this subject.

The employment of these fake devices for the restoration of impaired hearing is wide-spread and their use fraught with great danger and absolute futility.

They have no principle of application, nor do they take into consideration the causes of deafness; nor the state of the external auditory canal, the membrana tympanum, middle ear or the functional activity of the auditory nerve or center. Their application for the cure of deafness is conspicuously unscientific.

Perchance the canal may have been filled with cerumen for years, hence the deafness, or some other foreign body may have gained access to it, or there are structural changes in the drum, and ossicles the result of an otitis media catarrhalis chronica, and these have become mechanical obstructions to the free passage of wave sounds. Some pathological condition of the internal ear may be present or, perhaps, a break in the continuity of the fibres of transmission to the cortex.

These conditions are studiously ignored, and the dangers that threaten to further obtund hearing are unknown to the patient.

An aurophone or artificial drum, like any body in the external auditory canal, is foreign, excites irritation and inflammation of the tissues, perverts the secretions and aborts the object of its existence by producing further mechanical obstruction, which latter is intensified if any of the above enumerated conditions are present. In any case their introduction into the auditory canal is both dangerous and useless, for reasons above stated, and it must not be forgotten that if the drum be perforated either device is very apt to be forced into the tympanic cavity.

MEDICAL JOURNALS AND THEIR ADVERTISERS.

The most important element of monetary support received for the publication of Medical Journals of to-day undoubtedly comes through the advertisers of medical supplies, etc., and the probabilities are, without any exaggeration whatever, that fifty per cent. of the Journals would die a rapid death of bankruptcy if this most essential source of revenue were suddenly cut off.

The journal, not *a* journal, is a more potent factor in the dissemination and fixation of the principles of medical ethics than most physicians, at first sight, are willing to admit.

Their ownership, mode of expression, the interests in which they are maintained and circulated; and the privileges which are accorded that most essential body, the advertising fraternity, are all very important points which profoundly affect the thoughtful doctor and raise or lower the dignity, honesty and usefulness of the organ in his estimation.

Upon the extent to which the privileges of space, place and especially prepared printed matter demanded, as a matter of business, by the firms from whom the journal obtains its vital income, is granted, depends the immediate or future standing of the journal, and, of course, the credibility with which its contents are received.

The acquiescence of the business management to these demands is becoming more apparent and general, and at the same time exceedingly distasteful to the ethical mind, and rest assured that this condescension is not entirely devoid of danger to the integrity and educational mission of medical journalism.

The primary object for the request of such grants is the innate business desire to have all the advertising matter perused, and the means for the attainment of this end are numerous. The latest of which, always like the latest, just out, is similar to the plan adopted by the patent medicine men in the daily press, it consists in seducing the reader by the nice and perfectly proper, ethical title, with no italics in the body of the article, but a note that it has been read before a medical society, to believe he has a subject before him worthy of studious perusal, and what is his astonishment and disgust to find that he has been shanghaied into reading some "*ad.*" about the numerous nias, ines, emulsion, etc., and not as he was enticed to believe, a contribution of some value and written by a writer of some attainments.

This new departure for originality and insulting nerve cannot be beaten by the itinerant showman. The reader will never forget this treatment.

HYGIENE AND THERAPEUTICS.

Medical men are often so taken away with the pursuit of knowledge for its own sake that they lose sight of the one great end and aim of medical study, which is, the alleviation of suffering and the prolongation of life, as effected by the prevention and cure of disease. The two branches in which these objects are more particularly studied and to which all other branches are but auxiliary, are hygiene and therapeutics. Hygiene has become in these days a science apart, and one which interests and attracts to itself many earnest students among the laity as well as in the ranks of the medical profession. But therapeutics, the healing art, is one studied and scientifically and safely practiced only by the trained physician.

It is true therapeutic scepticism is just now prevalent, and it is very much the fashion to decry drugs, to regard most diseases as incurable, or rather self-curable, and to put faith chiefly in diet and careful nursing, leaving to the *vis medicatrix naturæ*, the phagocytes, or something else, the cure of the disease. A truly scientific scepticism is commendable, but there is danger of going too far, and incredulity carried to the extreme may become credulity in another form. We may confess that there are

many diseases that we cannot yet cure, but we dare not say that they will always be beyond our skill to overcome, *veritable opprobria medicorum.* It is very possible that the time will come when the therapeutist, basing his researches upon the findings of the bacteriologist and the pathologist, will be able to cure typhoid fever or pneumonia as readily and as certainly as he now relieves many of the aches and pains and other minor ills that afflict humanity. But he will never accomplish this by folding his hands with the quiet resignation of despair. He must have hope and confidence in the ultimate success of his own or others' efforts, and must cure himself of the habit of looking upon disease as an indomitable foe.

Physiology, pathology, bacteriology, and all the other collateral medical sciences, are subsidiary to therapeutics, and a rational method of cure must rest upon the knowledge furnished by them. But while waiting for this knowledge the therapeutist cannot be idle; disease is ever present and he must fight it with the weapons that he has until other and better ones are put into his hands.

THE OLD AND THE NEW.

How real and persistent is the reputation of our old remedies—quinine, mercury, opium, alkalies, and iodide of potassium; but how much our store of remedies has been enriched by the addition of the bromides, salicin and its compounds, antipyrin, phenacetine, pilocarpin, iodoform, nitrite of amyl, nitro-glycerine, boric acid, &c. We are deluged, indeed, with new medicines, and they come to us in quantities which are embarrassing. Still, truth compells us to admit that they come in pharmaceutical forms which are a great improvement on old ones. The admirable preparations of active drugs for hypodermic use enables one to carry a medicine chest in the pocket of his coat, and to minister to urgent symptoms when medicine in ordinary forms administered by the mouth would be rejected.

It is perhaps premature to speak dogmatically of the treatment of diphtheria by antitoxin; but it is significant to notice the lower range of mortality from diphtheria in the metropolis since its introduction, and we have good reason to hope that a new realm of therapeutics has been sighted. Very remarkable, too, are the results of alimentation and massage in properly selected cases, and of the action of natural waters to be found in our own and other countries. The direct introduction of antiseptics into the trachea and bronchi in cases of phthisis and other forms of chest disease has been lately shown by some to be both practicable and beneficial. Speaking generally, we have outlived the idea that disease is to be treated by drugs alone. But we are no nearer the time when they can be dispensed with or administered in impalpable quantities without injustice to our patients and unfaithfulness to our art.

SHORTHAND WRITING AMONG DOCTORS.

If money is an object—and there are few to whom it is not—shorthand may obviate for the student the necessity of some text books. In the "Use of Shorthand by the Student"

Dr. Gowers tells us that, relying only on the shorthand notes of the lectures he attended—to the exclusion of text books—he won the gold medal on taking his degree. Granting that Dr. Gowers embodies in himself that combination of ability and industry which is said by some to be the same thing as genius, it is tolerably sure that he could not have achieved this triumph without the aid of some form of quick writing, of which none is better than phonography. And this brings us to what is perhaps the most important feature of shorthand in medical work—is educational influence. Shorthand not only enables a student or medical man to work better, but to do better work. The act of writing becomes a pleasure instead of a tedious drag, and the mental processes evolved by the record of facts induce, to quote the words of Dr. Gowers, "a habit of quicker discernment," whilst the revision of the notes compels "a habit of looking out for the significance of the facts and of their relation to knowledge previously obtained. The power of seeing with the mind as well as with the eye becomes developed more and more, and its cultivation lays the foundation for an increased capacity, and even for an ability that would not otherwise exist, which will go on increasing through life, and cannot but make a great difference to the manner in which life's work is done." If time allowed I would pursue this point further, and I will content myself by quoting other words of Dr. Gowers, and say with him:

"Of two students with equal ability, character, and knowledge, of whom one knows shorthand and the other does not, it is certain that the one who knows shorthand will far exceed the other who does not. Whatever a student would do without it he will certainly do much more, achieve a higher position, gain greater capacity, be more fitted for the work of after-life, and do that work better, if he uses shorthand."

But for the student to secure these advantages it is essential that shorthand be learnt before medical studies begin. The attempt to learn it after study commences is more likely to be a hindranee than a help, although a student of ability and determination may succeed in acquiring it.

A CITY HOSPITAL FOR CHARLOTTE.

The Board of Aldermen of our City have recently been petitioned concerning the establishment of a public Hospital. We have long recognized and felt the necessity and value of such an establishment in our midst, and we heartily endorse this movement towards its realization. Such an institution, unfettered by political pulls and patronage, and man-

aged upon a scientific and business basis could not fail to do much good and prove a boon to the worthy afflicted poor of the city. In addition to this the physicians of the city would have an institution where they could send their patients and perform operations under the most modern and favorable facilities. This in itself would prove a source of remuneration to the hospital and a great convenience to the profession. From our knowledge of the physicians of the city, we are satisfied to say that the hospital could obtain all the free attendance for its charity cases that might be desirable. Our physicians would be willing to rotate in the free service. We trust that the authorities will see proper to build and operate a modern hospital in the city of Charlotte.

COLOR-MUSIC: ANOTHER SENSE.

A recent writer in the July number of the Nineteenth Century has given us great possibilities to think about—another special sense; it is about to be or it has been in some quarters added to our already five senses, and the question which naturally suggests itself at the present time is this new acquisition an essential, a necessary and useful one to mankind or will it be only cultivated and acquired by the few as a rare and unusual manifestation of erudition?

It consists in the conversion of music sounds by the aid of electricity into corresponding color harmonies, the intensity and complexity of which will depend upon the tones and intricacy of combination of musical sounds.

The musical-color sense has just passed beyond the experimental stage, and is practical as far as the external excitors (the converted music color) are concerned, and the only unknown quantity to estimate. and by the way the most essential, is it possible according to the present anatomical structure and physiological development of our color sense to further cultivate and develop this embryonic sense (color-music) into a full grown one, e. g., sight, hearing, smell, etc., or probably determine that the sense of color is a distinct one and has wrongly been absorbed for centuries by the sense of sight.

The development of the color sense in its present crude condition is not by any means uniform, as evidenced by the results of many chromatic examinations so necessary in quite a number of avocations.

May not this ununiformity be an evidence of the truthfulness of the assertion made by phrenologists and craniognomists that an individual with a faculty well developed, e. g., the color sense, is in a position to acquire knowledge easier in this particular faculty than in one whose color development is rudimentary; in other words the person with the least color sense has not the same advantages to acquire color-music sense as the boy or girl with good color acuity.

DR. BARRINGER'S LECTURE.

On the night of December 28th, Dr. Paul Barringer delivered, in the Library Rooms in this city, a most interesting and highly instructive lecture on the germ theory of disease. Dr. Barringer stated that he had chosen a subject most difficult to present to an audience composed largely of laymen, and ergo would give a synopsis of its history. He began with the microscope brought forward in 1619, before good King James and brought down its influence on the study of bacteriology to the present day. He showed the influence of the knowledge thus obtained on the prevention of the various forms of disease, such as consumption, etc. He pointed out how the so-called failure of Koch's tubercolin had been only along certain lines as it furnished a ready means of determining the presence of the disease (tuberculosis) among milch cows.

What could be more striking than to present King James as the patron, both of the Bible and the microscope? The placing of grass in water or hay in water, he said, in a short while resulted in the production of thousands of germs. Then men began to say there was no use of original creation. The Church began to state this was not so. The worm in the apple and the pea were cited. The hay infusoria, it was next discovered, when boiled and sealed showed no more life and thus the heterogeneous advocates were silenced and the controversy ceased. In 1775 oxygen was discovered and this war broke out again. The doctor went on to explain the further discovery that small micro-organisms were killed at 212 degrees, but that the spores were not killed. They must be thrice boiled to be certainly killed.

MEASLES THROUGHOUT THE COUNTRY.

From every city, town and village, in this portion of the world comes the cry of measles, measles, measles. There is no record when this disease prevailed as extensively as it has during the past three months. You see infants at the breast with the measly rash, and you hear the irony cough from the aged. It is irrespective of people, color and race, and the Banker escapes not, neither the colored Episcopal minister. Though its prevalence has been very great, its mortality rate is low. This epidemic may very seriously impede the mill enterprises in this city, not being able to secure hands to operate the machinery. Thus far no delay has occurred. The idea that cold water must be avoided in the treatment, and hot drinks and *teas* of all kinds must be freely imbibed, is still partly observed, but it is to be hoped that by the time another epidemic of this character is visited upon us, the people will have become educated to the fact that cold drinks in measles are much more palatable and not only less harmful, but equally as beneficial to the patient.

THE NEED OF MORE HYGIENE IN RURAL DISTRICTS.

While sanitation has made rapid strides in the great cities, it has not in rural districts and small towns made the same progress.

The principal points wherein reform is needed seems to be in the line of water supply, waste disposal and drainage: The complete abandonment of all shallow wells and the substitution of deep tube wells for isolated districts; for towns, a public supply drawn from uncultivated and uninhabited uplands, and the sanitary supervision of all such districts.

In the matter of waste disposal: all privies and cesspools should be absolutely prohibited, and when water carriage is not available, the disposal of excreta by means of the ash or dry earth closet is the only proper method. Slop and wash waters are best disposed of by means of surface or subsoil irrigation over neighboring land, kitchen refuse, &c., should be burned in the range, or what is perhaps better, in a simple open air furnace made of brick.

In country houses, where water service is used, surface irrigation of the sewage, over some near by field, is the plan to be desired.

Drainage, both surface and subsoil, has been much neglected, but it is a potent factor in the healthfulness of a locality; it is really wonderful what changes are wrought on a moist land by careful underdraining—it is the old story of the Pontine Marshes. The proper preparation of a building site is still another point: many houses of the poor are put down without any cellar, and the residual dampness in such houses cannot fail to be a factor in disease. A cellar, five or six feet deep, with the walls properly constructed and a floor, underdrained if necessary, and then covered with several layers of bricks, pitch and concrete, make the proper and only proper foundation for a dwelling.

How can these advances in sanitation be accomplished? By educating the people to the proper understanding of the value of sanitary affairs, and this rests with—the family physician.

DR. R. L. PAYNE GOES TO NORFOLK, VA.

On December 30th Dr. Payne and family took their final departure from Lexington, N. C., for Norfolk, Va., their future home. The love, admiration and high esteem which he enjoyed by all the people of his native town is very fittingly portrayed in the clipping below from The Charlotte Observer:

Many of those were farmers from the country, who rode many miles, through mud and rain, to bid him a last farewell. Many were the expressions of regret at his final leaving. Sorrow was depicted upon the faces of all, and grown men and women wept like children. All the waiting rooms and the covering around the ticket office were packed, and

some stood out in the rain under umbrellas for hours waiting for the train. His friends fairly lifted him and baggage on the train. These marks of esteem are but partial tokens of the love and admiration in which he is held by the good people of his native county.

In his departure the town, county, State, church and society lose a polished, cultured gentlemen, an erudite scholar and eminent physician. As proof of these facts the medical profession of the State has elevated him to the highest position within its gift, by unanimously electing him president of the State Medical Society, a position he now so ably fills and which was once or twice filled by his distinguished father. This loss to the county is a greater one than it has ever sustained, except that sustained by the death of his lamented father, the late Dr. R. L. Payne, Sr. As a physician he is the equal of any—as a surgeon he has no superior in the State.

Dr. Payne is truly a remarkable man. As a student at our State University, one of his class, now a physician, says he had no equal in college. As a student at Jefferson Medical College, Dr. DaCosta, then professor in that college, said to one of our prominent citizens that "Dr. Payne has a brilliant future before him. He was one of the brightest students that ever graduated at Jefferson College." A prominent physician of Virginia told the writer that he had met Dr. Payne at one of the medical conventions and he regarded him as one of the brightest young physicians he had ever met.

But he is gone, and with him went the last one of the old distinguished Payne family.

THE EFFECTS OF DIET ON CUTANEOUS DISORDERS.

Some articles of food act in producing cutaneous disorders in an immediate manner by the exertion of what may be termed a toxic or dynamic influence. Of this result urticaria is perhaps the best example, but here idiosyncrasy comes into operation, since no one ingredient is capable of evoking wheals in all persons, or at all times even in the same person. Once initiated, however, the morbid tendency is apt to persist long after the original exciting cause must have ceased to be efficient. In such cases some ferment may cling to the intestinal walls, and continue for an indefinite period to exert its action on the products of digestion as they descend. This forms a link in the chain connecting this class with the next, in which the instrumentality of diet is a remote one. Much more frequently the influence of diet in provoking skin disease is to be attributed to slow and long-continued malassimilation. It is thus rather predisposing the determining cause coming from without or depending on some accidental circumstance. An appropriate illustration of this is afforded by pellagra, in which, while diseased maize is the agent which morbidly dis-

turbes the system, it is the sun's rays which light up the erythema, the integumentary manifestation. Viewed in this way it is not so improbable that some as yet undiscovered dietetic error may sow the seed which eventually, under the solar beams, ripens into xeroderma pigmentosum or hydroa vacciniforme.

LUMBARIN.

The reports concerning the effects of this specific in impotency continue to increase. Not only is the drug a certain cure in all uncomplicated cases, but its remarkable effect on the nervous system has been proved by the results obtained from its use in the opium habit. Especially a *gradual* withdrawal of the opium habit (or morphine, &c.,) can be easily achieved, if the dose of Lumbarin, taken at the time, the accustomed narcotic is used, is gradually increased. The withdrawal of the opium is not felt and the reflex irritation and collapse, which always accompany the omission of the narcotic, do not make their appearance. According to observations, made by Dr. Hugo Engel, Lumbarin, when taken a long time, seems in the end to create in the system a peculiar tolerance for the opium; in fact to make it opium proof, so that the narcotic may be either taken or omitted—neither affecting the organism. The discovery was made accidentally by a morphium habitue, who was taking Lumbarin for its effect on the sexual organs.

Lumbarin is no proprietary article, but a legitimate remedy with but one restriction: it is sold only to physicians and druggists, and patients can obtain it only on prescription.

FOOD FOR YOUNG CHILDREN.

It is startling that there are not more deaths among the little folks by improper foods than do actually occur. There are many mothers who give their babies mince pie, fried potatoes, cabbage, and all kinds of vegetables, fruits and meats of all kinds long before there is a sign of a tooth. They give it because their grandmothers gave it. They think the child's stomach is only a receptacle, and must be kept full. They seem to forget the fact that the infant, as a rule, brings its natural life and health sustaining food with it. Every time a child cries they must feed it, when oftentimes a little water is all that is necessary.

"At the Congress for the Protection of Children, sitting at Bordeaux, France, a resolution was adopted to the effect that artificial food should be forbidden in the case of infants under six months of age; that from six months to twelve months of age the food should be milk with a little farinaceous material of the yellow of eggs; and that from one to two years the diet should consist of milk, eggs, mashed vegetables, tapioca, and a little boiled fish. The feeding-bottle with India-rubber tubing was unanimously condemned."

BOOK REVIEWS.

An American Text-book of Surgery—For Practitioners and Students. By Chas. H. Burnett, M. D., Phineas S. Conner, M. D., Frederick S. Dennis, M.D., William W. Keen, M D., Charles B. Nancrede, M. D., Roswell Park, M. D., Lewis S. Pilcher, M. D., Nicholas Senn, M. D., Francis J. Shepherd, M. D., Lewis A. Stimson, M. D., William Thompson, M. D., J. Collins Warren, M. D., and J. William White, M. D. Edited by William W. Keen, M. D., LL.D,, and J. William White, M, D., Ph. D. Profusely illustrated, Second Edition. Philadelphia: W. B. Sanders. 1895. Price, $7.00 cloth; $8.00 sheep; $9.00 half Russia.

It was our great pleasure about three years ago to review the first edition of this excellent work on Surgery. Before us is the second edition carefully revised and considerably enlarged. The three years that have elapsed since the publication of the first edition have been years fruitful in surgical progress, and accordingly a number of topics have been added to the text as well as others expanded, Space will not permit the enumeration of the many changes made in the text, but among others may be mentioned the effect of modern small arms in military surgery—a new section on Acromegoly; the Hartley—Krause method of removing the Gasserian ganglion; the osteoplastic method of resection of the skull, with a number of additions to operations and methods in endo-cranial and spinal surgery; in the surgery of the chest, a description of Schede's operation; in the surgery of the digestive tract, Witzel's method for gastrotomy, the use of Murphy's button in intestinal anastomosis; Mocewen's method of compressing the aorta in amputation at the hip joint, etc., etc. Many other chapters have been considerably enlarged, particularly in the matter of treatment. The work is full of attractions, being recognized as the most complete and authoritative work on Surgery to which we have access. It is well illustrated, the colored plates are specially fine. This is one of the many beautiful works that W. B. Saunders has lately published.

Materia Medica and Therapeutics. A Practical Treatise with Especial Reference to the Clinical Application of Drugs. By John V. Shoemaker, A. M., M. D., LL. D., Professor of Materia Medica, Pharmacology, Therapeutics and Clinical Medicine, and Clinical Professor of Diseases of the Skin in the Medico-Chirurgical College of Philadelphia; Physician to the Medico-Chirurgical Hospital, Philadelphia, etc., etc. Third edition, thoroughly revised. Reset from new type and printed from new electrotype plates. Royal octavo. pages ix, 1108. Extra cloth, $6.00 net; sheep, $5.75 net. Philadelphia: The F. A. Davis Co., Publishers, 1914 and 1916 Cherry street.

Heretofore this work has appeared in two volumes. It is a wise and judicious step the author has taken in combining the two volumes into one. The work is greatly enhanced and will be more appreciated. The skill of chemists and the zeal of clinicians have, during the past two years introduced many new preparations to the profession, and many new applications of the older remedies have been discovered and their usefulness

greatly enlarged. Besides the characteristic descriptions of the old remedies the work contains much additional matter in reference to acetanilid, antipyrin, creosote and its derivations, hydrogen dioxide, salophen, trional, dermatol, new naphthol and phenol compounds. In this edition will also be found new articles on tolysal, tolypyrin, salocoll, salacetol, chlor phenol, bromphenol, etc. The subject of treatment by means of animal extracts, secretion or juices, and immunized serum, or antitoxins, have been rewritten, and the present state of knowledge concerning the value of these agencies in combating disease is given. Every thing in the world pertaining to materia medica is given fully, and the therapeutics are exceptionaily fine. The drugs are classified in an alphabetical order, giving the ordinary as well as the technical terms, with its pharmacology, physiological action and therapy. Many excellent formular are given under the description of each drug. It is a magnificent work for reference, and a safe and reliable guide in the materia medica and therapeutical field. The formulæ for hypodermic use and the recipes for articles of food for the sick found at the close of the work add much to the value of the book, thus making it complete in every sense of the word. It contains a good general index as well as a clinical index. It contains something over 1100 pages, and we heartily commend this work to any one desiring to obtain information regarding materia medica and therapeutics. We would not forget to compliment the publishers on the very excellent general appearance of the book, the type being of the very best and satisfactory in every respect.

Pregnancy, Labor, and the Puerperal State. By Egbert H. Grandin. M. D., Consulting Surgeon to the New York Maternity Hospital; Consulting Gynæcologist to the French Hospital, N. Y., etc.: and George W. Jarman, M. D., Obstetric Surgeon to the New York Maternity Hospital: Gynæcologist to the Cancer Hospital, N. Y., etc. Illustrated with Forty-one (41) Original Full-page Photographic Plates from Nature. Royal Octavo, Pages viii, 261. Cloth, $2.50 net. Philadelphia: The F. A. Davis Co., Publishers, 1914 and 1916 Cherry St.

When the work on "Obstetric Surgery" first made its appearance we thought that it was the most useful and practical book ever published, but after examining the one before us we find it just as good and practical and useful and deserving the same encomiums as its companion. The work is a new departure from the old literature, giving us a guide to the actual practice of obstetrics. The work is divided into three sections, viz.: pregnancy, labor and the peuperal state. The first treating of the diagnosis, differential diagnosis, duration and hygiene of pregnancy. Pathology of pregnancy, diagnosis of the presentation and position of the fœtus. The second section treats of the mechanism of labor, the clinical course of labor and care of new born infants. Part III. normal puerperium and the pathological puerperium. The pathology of pregnancy is well handled. The plates illustrating the position of the fetal heart-sounds are aptly chosen.

The illustrations in this work are the finest we have ever seen, which are valuable adjuncts to the already clear texts, and it is quite pleasing to note that the illustrations are original photagraphic engravings from nature. We could scarcely find a book that presents a neater, prettier appearance than the one before us. This volume is a concise record of things necessary to know in order to properly understand Pregnancy, Labor and the Puerperal State.

SAUNDERS' AMERICAN YEAR-BOOK OF MEDICINE AND SURGERY. 1896. Collected and Arranged by Eminent American Specialists and Teachers, under the Editorial Charge of GEORGE M. GOULD, M. D. In one Royal-8vo volume of about 1000 pages, uniform in size with the "American Text-Book" series. Profusely illustrated. Prices: Cloth, $6.50, net; Half Morocco, $7.50, net. Sold by Subscription. Philadelphia: W. B. Saunders, 925 Walnut Street.

This is a wonderful book. It gives to the physician in a compact form an annual epitome of the new and progressive medical truths or suggestions published during the months of the preceding year, from July to June inclusive. He who is the happy owner of this work can keep in touch with the most important advances made in all departments of medicine and surgery. To give our readers some idea of the magnitude of the work, together with its distinguished contributors, we give this outline.

General Medicine—William Pepper, M. D., and Alfred Stengel, M. D., Philadelphia, Pa.

Surgery—William W. Keen, M. D., and J. Chalmers DaCosta, M. D., Philadelphia, Pa.

Obstetrics—Barton Cooke Hirst, M. D., and W. A. N. Dorland, M. D., Philadelphia, Pa.

Gynecology—J. M. Baldy, M. D., and W. A. N. Dorland, M. D., Philadelphia, Pa.

Diseases of Children—Louis Starr, M. D., and Thompson S. Westcott, M. D., Philadelphia, Pa.

Nervous and Mental Diseases—Archibald Church, M. D., and Hugh J. Patrick, M. D., Chicago, Ill.

Dermatology—William A. Hardaway, M. D,, and C. Finley Hersman, M. D., St. Louis, Mo.

Orthopedics—Virgil P. Gibney, M. D., and Homer W. Gibney, M. D., New York City.

Ophthalmology—Howard F. Hansel, M. D., Philadelphia, Pa., and Charles F. Clark, M. D,, Columbus. Ohio.

Otology—Charles H. Burnett, M. D., Philadelphia, Pa.

Rhinology and Laryngology—E. Fletcher Ingals, M. D., and T. Melville Hardie, B. A., M. B., Chicago, Ill.

Pathology and Bacteriology—John Guiteras, M D., and David Riesman, M. D., Philadelphia, Pa.

Materia Medica, Experimental Therapeutics, and Pharmacology—

Henry A. Griffin, M. D., and Van Horne Norrie, M. D., New York City.

Anatomy and Physiology—C. A. Hamann, M. D., and G. N. Stewart, M. D., Cleveland, Ohio.

Hygiene, Physiology, and Chemistry—Henry Leffmann, M. D., Philadelphia, Pa.

One great and leading feature of this work is its thorough condenseness, so much valuable material in such compact form. Space will not permit the full description of the work which it merits, or such as our pleasure at its perusal would prompt. The art of the publisher is well displayed in the work in the choice of paper, type, engravings and binding. It is replete with original and selected illustrations, skillfully reproduced, thus insuring accuracy in delineation, affording efficient aids to a right comprehension of the text and adding to the attractiveness of the volume. The work should find a welcome to every library. Too much study cannot be given to it.

A Handbook on the Diseases of Children and their Homœopathic Treatment. Illustrated. A Text-book for Students, Colleges, and Physicians. By Chas. E. Fisher, M. D. Chicago: Medical Century Co. 1895.

The study of the diseases of children is one of the most fascinating subjects in medicine. Practice among little folk forms not only the bulk of the work of the general practitioner, but it is his most attractive field, providing always that he is well acquainted with their ailments and is possessed of that milk of human kindness that is a component part of the character of the conscientious and pains-taking physician. This work includes studies of all the diseases pertaining to childhood. Section I. is devoted to general considerations, as the physiology, feeding, dentition and the examination of children. The author has given just as much attention to the etiology, symptomotology, pathology, etc., as he has to the use of drugs and their indications, This book is very practical, the evidence of which is based on the author's twenty years experienee. It has been written from the view point of the bedside practitioner, and will excellently serve as a text book for students and beginners in practice, and a work of ready reference and resourceful comfort for the busy doctor of the general field as well. It is the most complete Homœopathic work on the diseases in question that has ever been issued from the press. Every chapter is sensibly written, clear and free from ambiguity and exageration. The illustrations are many and good, The book with its sheep binding presents a handsome and most beautiful appearance.

Elementary Technique in Histology and Bacteriology. By Ernest B. Hoag, A. B., B. S., and H. Kahn, M. (Mich.) Chicago: E. H. Colegrove & Co.

The author states that this guide in elementary technique is intended for the use of medical and other students beginning work in either Histology or Bacteriology. The work is nicely arranged, and contains a

great deal of valuable information to the Student in Histology. The book answers the purpose admirably for which it was intended.

Diphtheria and Its Associates. By Lennox Browne, F. R. C. S., Ed., Senior Surgeon to the Central London Throat, Nose and Ear Hospital; Late President of the British Laryngological Association; Corresponding Fellow of the American Laryngological Association; Author of "The Throat and Nose and Their Diseases," etc. Illustrated by the Author. Bailliere, Tindall & Cox, Publishers, London. J. B. Lippincott Company, Publishers, Philadelphia, Pa., 1895. Price, $3.00.

The author of this work is well known on both sides of the Atlantic ocean. He has certainly maintained his well earned reputation in this very original work. In the preface this is said:

"The present essay is based mainly on a course of lectures recently delivered for the purpose of establishing a landmark at an important era in the history of diphtheria, and of impressing the desirability of assimilating the teachings of bacteriology to the purposes of practical medicine. In other words, to indicate the necessity for the scientific expert and the clinician to work together as colleagues, and not as rivals."

The work is divided into thirteen chapters and includes the definition, history, etiology, pathology, bacteriological diagnosis of diphtheria and its associates, the clinical diagnosis and its associates, record of illustrative cases and its associates, the elements of prognosis, the treatment of diphtheria and its associates, laryngo-tracheal diphtheria, croup, hygiene and prophylaxis of diphtheria and formulæ for remedies in diphtheria, the latter being of very great value to practitioners.

One of the most interesting and useful features of this work is the appendix, which is devoted to the Serum Treatment of Diphtheria. The work is beautifully printed and graphically illustrated by the author, thus giving the reader a good idea of the pathological and bacteriological condition of this dreaded disease.

Pediatrics. The Hygienic and Medical Treatment of Children by Thomas Morgan Rotch, M. D., Professor of the Diseases of Children, Howard University. Philadelphia: J. B. Lippincott Co. 1896.

This is a most notable book from the fact that it is devoted entirely to the Diseases of Children. The publication of a work of this character should be looked upon as a great advancement in the history of pediatric literature. Three notable features about the work among many others is that it is devoted to the hygiene and medical treatment of children—that the healthy child receives the attention properly due to his importance and the large personal element which enters into the book. The author has adopted the plan of taking the infant at birth and following it through its various stages of development, and it is a good plan.

The first lecture is on the foetal circulation, and is concise and altogether admirable. The infant at term and normal development are des-

cribed in an instructive way. That part of the work devoted to Infan Feeding is the most complete monographs with which we are familiar. We are greatly indebted to Dr. Rotch for exact methods of infant feeding.

The lecture on Premature infants deserves special mention. The incubators described seem to be as near perfection as can be attained.

Liberal space has been accorded to diseases of the nervous system, the blood, diphtheria, diseases of the digestive organs. Just here the author startles us with his food prescriptions—something entirely new and good and useful. The success sought for in many diseases of children can only be attained by proper diet. It is useless for me to extend my remarks further upon the excellencies and merits of this work. It stands out as a monument to itself, a credit to the author and to the American medical profession.

The illustrations are exceptionally good and those of the intestinal diseases worthy of special mention. This is the kind of a book that every physician needs to have at ready convenience for reference and consultation. The publishers have given to the profession a book quite up to the high standard of excellence for which they have long been noted.

INTERNATIONAL CLINICS. Edited by JUDSON DALAND, M. D., J. MITCHELL BRUCE, M. D., F. R. C. P., DAVID W. FINLAY, F. R. C. P. Vol. II., Vol. III. Fifth Series. 1895. J. B, Lippincott Co., Philadelphia.

All that is necessary in reviewing these two volumes is simply to announce that they are ready for sale. Their reputation is established. One always look forward with a great deal of pleasure to the publication of this "Quarterly of Clinical Lectures" on Medicine, Neurology, Pediatrics, Surgery, Genito-urinary Surgery, Gynæcology, Ophthalmology, Larangology, Otology and Dermatology, by professors and lecturers in the leading medical colleges of the United States, Germany, France, Great Britain, and Canada, for they are always full of fresh and useful information. These, the second and third volumes of the fifth series maintain their high pre-eminence as periodicals of great use to the practitioner. These volumes contain 43 lectures from persons upon subjects of their own selection, of which they are most familiar, thus making them of infinite value to physicians. Each volume contains many excellent illustrations, and forms an attractive as well as a useful contribution to medical literature.

A MANUAL OF SYPHILIS AND THE VENEREAL DISEASES. By JAMES NEVINS HYDE, A. M., M. D., and FRANK H. MONTGOMERY. Philadelphia: W. B. Saunders, 925 Walnut St. 1895.

A book of this character has been needed some time. It comprises in a compendious form, and with detail, all practical facts connected with the study and the treatment of syphilis and the venereal diseases. In the introductory the early history of syphilis is slightly touched upon, though this subject still remains unsettled. The next two hundred pages of the

book is devoted strictly to syphilis in all its stages, manifestations, etc., etc. Many good illustrations are to be found under this section of the book. Chancroid or the non-infecting chancre receives its due portion of attention, especially the treatment of same.

Disorders not Invariably Venereal, including Balanitis and Balano-Posthitis, Phimosis, Parophimosis, etc., are carefully considered. The remaining portion of the work is devoted to the interesting and important subject of urethritis, acute and chronic, with their complications. Stricture of urethra, that troublesome result from gonorrhœa to all physicians, is fully and concisely dealt with. The book contains over 600 pages, nicely printed and neatly bound. It is just the book foi the general practitioner, and especially is it suited to the needs of the young physician.

Electro-Therapeutical Practice. A Ready Reference Guide for Physicians in the Use of Electricity. By Chas. S. Neiswanger, Ph.G. E. H. Colegrove & Co., Chicago. 1895.

This is a good little book for Practitioners who have the desire to use electricity in their practice principally as an adjunct to other therapeutic agents. In this work all superfluous verbiage has been discarded ; no theories are advanced, no pathology given, and there is no war waged on the various writers and teachers of electro-therapy because of different views and theories held by them. The little book has a nice flexible back and is clearly printed.

Demon Possession and Allied Themes. Being an Inductive Study of Phenomena of our own Times. By Rev. John L. Nevins, D. D., for Forty Years a Missionary to the Chinese, with an Introduction by Rev. F. F. Ellinwood. D.D. Price $1.50. Flemming H. Revell Company, Chicago.

There is no one more capable of writing this book than the author. His philosophic insight, his judicious fairness of mind, his contrite and his conscientious thoroughness, admirably qualifies him for the task Moreover his thorough mastery of the Chinese language, spoken and written, his intimate sympathy with the people, and his correspondingly truer interpretation of their innermost thought and life, render him thus more capable of ascertaining the real facts in the case, and of forming accurate judgments upon them.

The investigations of the author of the work have led him to concur with the Chinese, who, by the by, are not alone in this idea, an invalid woman having recently been fatally burned in Ireland for the purpose of driving away a witch that had possession of the body, while the literature of psychiatry contains many reports of cases of dæmonomania.

The author has made a comprehensive review of the literature of his theme and of the data he has personally collected, and he has been forced to conclude that he could not refer the causation of the phenomena to any other source than that of demon possession.

While there are too many elisions in the logic, and too often a con-

clusion is accepted on insufficient evidence, the book is an interesting addition to psychological literature.

SOUTHERN HEROES, OR THE FRIENDS IN WAR TIME. By FERNANDO G. CORTLAND Cambridge: Printed at the River Side Press. 1895.

This book contains nearly five hundred pages. It gives a record of certain facts concerning the sufferings of Friends during the war of 1861-'65. The annals of Christianity contain numberless instances of cruel persecution heroically and patiently endured, but it is doubtful if any of these in any age have been more striking and painfully instructive than those recorded in the pages of this book. It is well that this story, or series of stories, has been written down. It is hghly instructive from many standpoints. It is a part of the history of our country's struggles for and progress toward real freedom, the depth of whose meaning has as yet been but imperfectly understood. The book is clearly printed and well bound.

ENGLISH LANDS, LETTERS AND KINGS: Queen Anne and the Georges. By DONALD G. MITCHELL. 12mo, pp. 354. New York: Charles Scribner's Sons. $1.50.

This third volume in Mr. Donald G. Mitchell's felicitous and sympathetic bits of literary and historical characterization is a book that will give pleasure alike to the well read student of English literature and the young high school beginner. The two previous volumes had covered (I) the period "From Celt to Tudor," and (II) "From Elizabeth to Anne." The present volume, dealing with the period of Queen Anne and the Georges, tell us of the personality and the literary achievements of the chief personages in English letters from Bishop Berkeley and Richard Bentley to Lamb, Coleridge and Wordsworth. Mr. Mitchell avoids the pedantry of the class of writers who love to show their learning by recalling a host of forgotten writers, and discourses only of those who have won an abiding place. The familiar and easy tone of the book is due to the fact that Mr. Mitchell has published what he had originally prepared as literary talks for educational audiences. The volume includes eight such discourses.

PHYSIOGNOMY ILLUSTRATED; or Nature's Revelations of Character. By JOSEPH SIMMS, M. D. Tenth Edition. New York: Murry Hill Pub. Co.

This book of over 600 pages is the most complete of its kind that has ever been published. It is written by a celebrated scientist, who has devoted his life to the study and promulgation of physiognomy, and he is the only scientist who has ever devoted his life to this work. The work is so interesting that whoever takes it up has great desire to look through it. It touches upon thousands of points of interest in the animal world, and concerning the human race, its nature and development.

Old and young, infidel and christian, novelist and historian, each can find something new, good and interesting in its pages. The book is

copiously illustrated with portraits of noted men and women. It has scattered all through its pages gems of thought, items of information, statistics and scraps of poetry, and one hardly knows when to pause and lay it down.

THINKING, FEELING, DOING. By E. W. SCRIPTURE, Ph.D., Leipzic, Director of the Psycological Laboratory in Yale University. Flood and Vincent, Meadville. Penna., 150 Fifth Ave., New York. 1895.

This is the first book on the *new*, or experimental, psycology written in the English language. The greatest of psycologists, Wundt, has written a series of lectures on psycology, but the style and matter are fully intelligible only to those who are already somewhat familiar with the science. No one else has produced a book explaining the methods and results of the new psycology. The author states that he has written in a plain every day style, and has not tried to cloth ignorance in the multitudinous syllabifications and frangomaxillary combinations that pass as philosophic English. The book is nicely printed and bound.

PAPERS AND ADDRESSES OF MARTIN B. ANDERSON, LL.D. Two vols., 12mo, pp. 297-787. Philadelphia: American Baptist Publication Society. $2.50.

These volumes contain papers and addresses on a variety of topics, prepared by President Anderson between the years 1850 and 1887. The first volume is entirely devoted to educational and religious discussions; the second is made up of six papers on philosophical and scientific subjects and six addresses on miscellaneous topics, ranging from "Alexander von Humboldt" to "Political Economy and its Ethical Relations" and "Currency Legislation." All these writings are marked by the characteristics which the students of Rochester University during many years learned to appreciate—great breadth of view, clearness of insight and power of direct and forcible statement.

ONE WOMAN'S STORY; or, The Chronicles of a Quiet Life, as Told in Dorothea's Diary. By ELLEN A. LUTZ. 12mo, pp. 300. Cincinnati: Cranston & Curts. $1.25.

In the form of a diary covering a period of twenty years the heroine of this story gives us an insight into the experiences, particularly from the spiritual point of view, of a good daughter and sister, loving wife and devoted mother. The book reminds one of Mrs. Prentiss' "Stepping Heavenward." Many pages in this story of a home life will touch the hearts of sympathetic readers.

Reprints.

Circumstances under which Chloroform is Preferable to Ether as an Anesthetic. By George W. Gay, A. M., M. D., Visiting Surgeon to the Boston City Hospital. Reprinted from the Boston Medical and Surgical Journal of October 31, 1895.

A New Phase of Celiotomy. By F. J. Groner, B. S., M. D., Grand Rapids. Reprint from American Medico-Surgical Bulletin, November 1, 1895.

Response to the Toast, "Ephraim McDowell." Delivered at Annual Banquet of the Chicago Gynecological Society, October 18, 1895. By Joseph Eastman, M. D., Indianapolis. Reprinted from the Journal of the American Medical Association, November 23, 1895.

Modern Methods of Treating Diseases of the Nose and Throat. By O. B. Douglas, M. D., Professor of Diseases of the Nose and Throat in the Post-Graduate Medical School and Hospital; Surgeon to the Manhattan Eye and Ear Hospital. Reprinted from the New York Medical Journal for October 26, 1895.

Deaf Mutes: Can They be Made to Hear? Read before the Pennsylvania State Medical Society, May 22d, 1895, by Louis J. Lautenbach, A. M., M. D., Ph.D., Philadelphia, Surgeon to the Pennsylvania Eye and Ear Infirmary; Nose and Throat Physician to the Odd Fellows' Home; late Chief of the Eye Clinic of the German Hospital.

Sympathetic Inflammation, with illustrative Cases. Clinical Lecture Delivered at the Philadelphia Polyclinic, by G. E. De Schweinitz, M. D., Professor of Ophthalmology in the Philadelphia polyclinic; Ophthalmic Surgeon to the Philadelphia, Children's, and Methodist Hospitals. Reprinted from International Clinics, Vol. II,, Fifth Series.

Something Concerning the Diagnosis and Treatment of False Croup. Read in the Section on Diseases of Children at the Forty-sixth Annual Meeting of the American Medical Association, at Baltimore, Md., May 7-10, 1805, by Starling Loving, M. D., First Vice-President, American Medical Association 1894, Columbus, Ohio. Reprinted from the Journal of the American Medical Association, October 5, 1895.

New Methods Employed for the Relief of Impaired Hearing, Especially the Use of the Phonograph, Vibrometer, Vibrophone, and Metronomic Ear Masseur. Read before the Philadelphia County Medical Society, May 23, 1894, by Louis J. Lautenbach, M. D., Ph.D., Philadelphia, Surgeon to the Pennsylvania Eye and Ear Infirmary; Nose and Throat Physician to the Odd Fellows' Home; late Chief of the Eye Clinic of the German Hospital, etc.

Brief Remarks on a Number of Surgical Operations Performed in his Private Hospital. By Joseph Taber Johnson, M. D., of Washington, D. C., Professor of Gynecology in the Medical Department Georgetown University; Gynecologist to Providence Hospital; Fellow and Secretary to the American Gynecological Society; Fellow to the British Gynecologi-

cal Society and of British Medical Association, etc., etc., etc. Reprinted from the Virginia Medical Monthly for August, 1889.

Brief Observations Based on an Experience of Eighty-seven Abdominal Sections. By Joseph Taber Johnson, A. M., M. D., Ph.D., Washington, D. C.. Professor of Gynecology in the Medical Department, Georgetown University; Gynecologist to Providence Hospital; Fellow and Secretary of the American Gynecological Society; Fellow of the British Gynecological Society; President of the Medical Society of the District of Columbia in 1887; President Washington Obstetrical and Gynecological Society. Reprint from Transactions of the Southern Surgical and Gynecological Association, 1890.

Literary Notes.

The first issue of the Atlantic Monthly for 1896 opens with an unpublished Note Book of Nathaniel Hawthorne now printed for the first time. There are also the opening chapters of a new three-part story by F. J. Stimson (J. S. of Dale) entitled, "Pirate Gold." It deals with romantic Boston life in the fifties.

Two Political articles will be sure to attract attention, 'The Emancipation of the Post Office," by John R. Procter, Chairman of the United States Civil Service Commission, and "Congress out of Date," the latter being an able statement of the evils due to the present system of convening Congress a year after its election.

Other features of the issue are "The Country of the Pointed Firs," a short story by Sarah Orne Jewett; "The Johnson Club," being an entertaining description by George Birkbeck Hill of the meetings of Johnson enthusiasts at the Cheshire Cheese and other of Dr. Johnson's famous resorts; a sketch of provincial French life by Mrs. Catherwood, "A Farm in Marne;" "Children of the Road," a study of child life among vagrants, by Josiah Flynt; and "The Schoolhouse as a Centre," by the editor of the magazine, a paper introducing the discussion of "The Status of the Teacher" in subsequent issues.

J. M. Ludlow, so identified with the work of Morris and Kingsley, contributes an able paper upon "The Christian Socialist Movement of the Middle of the Century."

There is a powerful installments of Gilbert Parker's "Seats of the Mighty," poems, and book reviews, and the usual departments.

Houghton, Mifflin & Co,, Boston.

Appletons' Popular Science Monthly for January, 1896.—Strong names and interesting topics combine to make the January number of Appletons' Popular Science Monthly notable. It opens with an account of The Smithsonian Institution, by Dr. H. C. Bolton, describing the ori-

gin of that noble establishment and giving views of its building and portraits of the men who have made it what it is. Mr. David A. Wells continues his series on the Principles of Taxation, describing the reforms in internal revenue taxes made immediately after the civil war and some of the curious conditions that they brought to light. In this number the magazine takes a decided stand against Scientific Temperance, so-called. President Jordan, of Stanford University, contributes an article on this subject in which he vigorously denounces as unscientific and ill-proportioned the teaching as to the physiological effects of alcohol and tobacco that certain reformers have forced into the schools of many States by act of Legislature. This teaching is referred to by Dr. T. M. Prudden, in his article New Outlooks in the Science and Art of Medicine, as a distortion of truth which is not likely to attain its object; and there is an editorial characterizing the statutory requirements above mentioned as a case of the State joining hands with counterfeiters of science. The evolution of the Architect is treated this month by Herbert Spencer in his series on Professional Institutions. Prof. Angelo Heilprin contributes A Student's Recollections of Huxley, revealing the great biologist as he appeared in the laboratory and the lecture room. The properties and modes of identifying the metal Helium, recently discovered on the earth, are given by Prof. C. A. Young, of Princeton. Prof. James Sully discusses the mental action of The Child as Artist. Among the illustrated articles is one by A. Tissandier describing The Botanical Garden of Buitenzorg, Java, and one on The Geological Work of the Air, by Stanislas Meunier. Prof. W. R. Newbold contributes a second paper on Suggestibility, Automatism, and Kindred Phenomena; Samuel J. Barrows tells what was done at The Fifth International Prison Congress; and Both Sides of Profit-Sharing are set forth by Frederic G. Mather. Prof. Ebenezer Emmons, who made the geological survey of one of the four divisions of New York State in 1836 to 1842, is the subject of the usual Sketch and Portait. Other subjects discussed in the Editor's Table are the progress of science and pessimism.

New York: D. Appleton & Company. Fifty cents a number, $5 a year.

The editor of the Review of Reviews, in the January number of that international journal, ventures a brief forecast of the year's developments in which he predicts the settlement of Cuban, Turkish and Chinese problems of nationality and government, the rapid industrial advancement of Japan, the still greater progress of European enterprise in Africa, the unprecedented hastening of railway-building in northern Asia, the laying of two Pacific cables, the practical use of horseless carriages in Europe, the replacing of steam by electricity on some important lines of railway, and valuable discoveries in medical and sanitary science. On the whole the Review looks forward to a "hopeful and interesting new year."

The complete novel in the January issue of Lippincott's is by Mrs. Alexander, the author of "The Wooing O't" and other well known books. "Mrs. Crichton's Creditor" was also her admirer, but his devotion was disinterested almost beyond parallel, and her innocence and sense of duty were such that the two would have made a model pair—if only they had been paired. As for Mr. Crichton, there was much less to be said in his favor.

"The Woman of Asbestos" is a Neapolitan story by Mrs. Pullen, better known as Elizabeth Cavazza, who knows southern Italy as if it were here native land. Dorothy E. Nelson strikes the true note of Christmas in "Our Lady of the Angels."

"The Way of a Will" was a curious way indeed; it is here traced by William T. Nichols, already well known to the readers of Lippincott's. Charles Dudley Rhodes tells with humorous Western cynicism the tale of "The Man who Came to Town."

"Architecture in America: a Forecast," by John Stewardson, is the first of a series of papers on a subject which now holds a prominent place in public interest. Dr. Charles C. Abbott preaches a little sermon on "Landmarks."

"The Moonshiner of Fact," as delineated by Francis Lynde, who here speaks from observation rather than imagination, differs materially from the moonshiner of romance. David Bruce Fitzgerald describes a night "With the Ducking Police."

Lyman Horace Weeks writes of "Some Women in Doublet and Hose" —actresses who appeared in male parts. Richard Henry Stoddard gives his reminiscences of "Longfellow," and Oliver McKee exposes "An Editorial Copy-Foundry."

The verse of the number is by Grace F. Pennypacker and Charles G. D. Roberts.

A New Volume of the Living Age.—The two hundred and eighth Volume of Littell's Living Age opens with the issue of the week ending January 4th. The beginning of a new volume is an excellent time for the beginning of a new subscription especially when, as in this instance, it includes a new—a lower price. For 1896 the subscription price will be six dollars. Good news truly to its subscribers and to all others who appreciate and enjoy good reading, for no one who wants the best of choice literature should be without it.

The reduction in price means no reduction in size or falling off in value, or any lowering of the high standard which it has always maintained. Foreign periodical literature continues to grow not only in bulk but also in the variety, interest and importance of the topics treated and it absorbs to a greater extent every year the works of the most prominent authors of the day.

Among the many valuable articles which may be already announced for the early numbers of the new year are "Matthew Arnold in his Letters," by Alfred Austin; "Muscat," by J. Theodore Bent; "Corea and Siberian R. R.," from Fortnightly Review; "Lord Salisbury," by Augustin Filon; "Kashmir," by Sir Lepel Griffin; "The Migration of Birds," by G. W. Bulman; "Air Car," by Lieut. B. Baden Powell; "Purcell," by Frederick Crowest; "Everybody's Chance," by John Habberton; "A. D. 1920," from Contemporary Review; "The Peasant Life of South Russia," and "The Life of Punch," from Blackwood.

For the amount and quality of reading furnished the price ($6.00 a year) is very low; to those desiring the cream of both home and foreign literature, the publishers make a still cheaper offer, viz.: to send The Living Age and either one of the American $4.00 monthlies, or weeklies, a year for $9.00, or any $3.00 monthly for $8,00. With The Living Age and one or other of our leading American monthlies, a subscriber will, at remarkably small cost be in possession of the best which the current literature of the world affords.

LITTELL & Co., Boston, are the publishers.

All Over the World Library. Across India or the Live Boys in the Far East. By Oliver Optic. Illustrated. Lee and Shepard, Publishers, Boston. 1895.

In this volume, which is the first of the third series of the "All Over the World Library," Oliver Optic takes the Belgrave family, in their steamer, the "Guardian Mother," sailing to Bombay and Surah. At the latter place the party leave the steamer and continue their voyage by rail to Lahore, Delhi, Cawnpore, Lucknow, and Benares, visiting the scenes of the Sepoy Rebellion, as well as many other interesting places. During the voyage on the "Guardian Mother," a party containing a number of persons of importance in India were rescued from the perils of the sea, and through their influence the party enjoyed many privileges, and were given much information during their tour in the country, which it would otherwise have been very difficult to obtain. The geography and history of the country are conveyed in a most interesting manner; but as the author knows just what young people desire, he does not allow their interest to lag from want of novel incidents and thrilling scenes, including hunting adventures and the sports of the country. (Price $1.15.)

No one ever thought of introducing so expensive a feature as lithographic color work in the days when the leading magazines sold for $4.00 a year and 35 cents a copy. But times change, and magazines change with them. It has remained for The Cosmopolitan, sold at one dollar a year, to put in an extensive lithographic plant capable of printing 320,000 pages per day (one color). The January issue presents as a frontispiece

a water-color drawing by Eric Pape, illustrating the last story by Robert Louis Stevenson, which has probably never been excelled even in the pages of the finest dollar French periodicals. The cover of The Cosmopolitan is also changed, a drawing of page length by the famous Paris artist Rossi, in lithographic colors on white paper takes the place of the manilla back with its red stripe. Hereafter the cover is to be a fresh suprise each month.

Baily & Fairchild Co. of New York take pleasure in announcing to the Medical Profession the establishment of the Doctor's Story Series, to be issued quarterly at $2.00 a year, 50 cents a number. Each number will consist of a complete work of fiction by medical authors. Only such works as are of established value will be reproduced in this popular form. King's "Stories of a Country Doctor" will be issued January, 1896 to be followed in March by Dr. Phillips' wonderful novel "Miskel" and later by a new novel now in preparation by the same author.

Thousands of persons to whom the name of the Smithsonian Institution is familiar, but who know little or nothing of its origin, will be glad to read the account of this establishment which Dr. Hennry Carrington Bolton is to give in Appletons' Popular Science Monthly for January and February. Both articles will be illustrated, the first containing views of the exterior and interior of the building, together with portraits of Smithson and three secretaries which the Institution has had.

Syphilitic Hæmatoma.

Dr. Hahn has published (Lancet) the particulars of a case of this rare affection of the dura mater. The patient was a man aged thirty-six, who had had syphilis about ten years before the onset of his nervous symptoms. These began with attacks of giddiness and severe headache, while his character underwent a great change. He finally had an attack of giddiness with loss of consciousness, and on the following day it was noticed that there was slight left ptosis, deviation of the tongue to the left on protrusion, deficient movements of the palate, indistinct articulation, and exaggerated reflexes. A few days later the following symptoms were also observed—viz., weakness of the right hand, diminution in the reflexes (especially of the knee-jerk of the right side), slight sensory disturbance, and impairment of hearing. He died about two weeks later comatose, having had previously some irregularity of breathing. At the necropsy it was found that over the whole of the left hemisphere, between the dura mater and pia mater, there was a thick layer of blood-clot ; while on the right the dura mater was smooth, the pia mater being thickened and the convolutions flattened. At the base the pia mater was thickened, as well as in the Sylvian fissure, while the basilar and the carotid arteries were

atheromatous. The left third nerve was flattened and apparently destroyed.

On the Deformities and Malformations Resulting from Acute Infections in Bone.

Dr. Roswell Park, of Buffalo, recently read before the American Orthopædic Association a paper with the above title. Concerning the pathology, symptomatology and treatment of these conditions he has in time past written various papers, which have been widely quoted from in literature. The present paper, however, deals rather with remote results of these conditions when neglected, than with their acute manifestations. He alludes, first of all, to the very common tubercular infection of lesions which were first pyogenic, and which occur either beneath the periosteum, in the epiphyses or in the diaphyses of any of the long bones. While speaking of tubercular disease of bone, he also alludes casually to acute miliary tuberculosis in bone, which corresponds in most essentials with similar invasions of the lungs, a condition rarely alluded to in surgical literature, of which he had seen several examples. It is, for the most part, destructive of the bones involved, and calls either for excision or amputation.

The course of a bone disease depends partly upon the location, and partly upon its character. If it assumes an acute type and prompt evacuation of morbid products be effected, the disturbance usually promptly subsides, with little deformity. When prompt recognition and immediate evacuation fail, the consequence is extension of disease, often necrosis of an entire shaft, spontaneous perforation, or sinuses through which sequestra protrude. Or, if the acute focus be located in an epiphysis, there is usually prompt infection of the joint, loosening of epiphyseal connections, with resulting pyarthrosis and necrosis of bone ends—a condition calling either for resection or amputation. Other things being equal, the most destructive lesions are those which produce the greatest deformity. Yet of the inveterately deformed cases, it is often those which are least destructive which most require orthopædic treatment.

Acute inflammation of bone may lead to arrest of development, and considerable discrepancies between limbs may be accounted for in this way. The writer also alludes to that kind of lengthening of long bones described by Ollier as "atrophic elongation," upon which he had previously presented a memoir to the Society.

Regarding persistent joint lesions, out of 28 cases in which the upper end of the femur had been involved, there were persistent lesions in 22; and of these, in 14 mobility was diminished, while in 10 there was absolute anchylosis, 8 times with posture deformity. In 8 cases there was spontaneous luxation to greater or less extent. Of 19 cases involving the

elbow joint, the humerus was involved in 10, the radius in 6, the ulna in 3. In two of these the joint was destroyed, and was anchylosed in four. Haaga has epitomized 470 cases of distinct osseous foci, in which 189 showed distinct joint lesions. Secondary infections of the knee, for instance, are extremely frequent; and in 107 cases of disease of the femur, the knee was involved in 71. Another kind of deformity is produced by arrest of growth in the arm and leg of one bone and compensatory hypertrophy of the other. Some remarkable deformities have been produced in this way. Another class of deformities is produced by muscle contractions, where extremes of motion are not permitted. Again, torsion and spiral flexion of bones are produced by muscle pull, muscles being thrown into pernicious activity by bone lesions, and the bone itself yielding because of softening. Of all the juxta-articular lesions, the most conspicuous are probably those produced by anchylosis.

Compensatory enlargement of one bone atoning for defects in the other is a distinct variety of change. This, after total necrosis and removal of the shaft of the tibia, the fibula enlarges often to the previous size of the tibia, and prepares itself for sustaining the weight of the body.

Dislocations are either of the distension form (i. e., permitted by great distension of the joint, as the result of outpour of inflammatory products), or are produced by too early consolidation between epiphysis and shaft, which, occurring, for instance, in the upper end of the tibia, while the fibula continues to grow, will produce a subluxation of the knee. Again, dislocation may be produced by overgrowth of ligaments, due to hyperæmia, which overgrown ligamentous bands stretch and give rise to flail-like joints.

Spontaneous fractures occur either by epiphyseal separations, or by trifling accidents when bones are weakened by disease.

Osteomyelitis is often followed by acute and total necrosis, particularly so in the clavicle and tibia—less often in the ribs, humerus, femur, etc. In fact, necrosis is the most common result of acute infections. It may assume either the peripheral, central or lamelated type; or it may prove transverse, disseminated or even total. Necrosed bones are exceedingly liable to spontaneous fracture, and the writer refers to several such cases.

Pruritus Cutaneus.

In an able paper read before the Detroit Academy of Medicine, entitled Pruritus Cutaneus, Dr. Biddle dissects the senses of the skin to determine the one involved in itching. In substance he says:

The feeling of itching implies a multiplicity of sensations, suggests an element of objectivity though indefinite, affording consciousness of something in contact with the skin as well as being a purely subjective annoyance. It is, therefore, a sense of a degree higher than that known

as common sensation. Of the higher developed senses there is the sense of touch, incomplete without the muscular sense and the senses of temperature, of pressure, and of contact. Senses that owe their differentiation to special sense—organs of the skin, special nerve—terminations, the so-called organs of reinforcement. "Pressure sense might be employed for that kind of touch, that gives definite presentations to consciousness." But before any consciousness of pressure exists we are sensible of contact. This primitive sense of contact may be regarded as the threshhold of the perceptive sense, and is the one most subject to disturbances in the sensory anomalies of the skin: these peripheral nerve-endings exist in numerous quantity in the epidermis, the seat of itching.

Speaking of the factors mostly concerned in the production of excessive itching, he believes that in almost all of these cases there is a degree of cutaneous hyperæsthesia, due to some hereditary, acquired or inherent tendency; that diseases cause the pruritus by the changes they produce in the circulating medium, the products becoming irritant and exciting directly the nerve termini in the skin, or by the changes they produce upon the nerve centres reflecting a morbid state to the skin. Among direct or indirect causes may be mentioned mental emotion and depression, exposure, functional disturbances of the gastro-intestinal genito-urinary tract, functional and organic changes of the woumb and ovaries. Such veneral diseases as rheumatism, diabetis mellitus or tuberculosis, action of certain narcotic drugs impairing the cutaneous sensibility, disorders of the sensory nerves, impairing the facility for conducting impressions, imperfect oxidation.

The various clinical forms of pruritus are then described to substantiate the theory advanced and to illustrate the causes.

Dr. William E. Ground, of Superior, Wisconsin, in a paper read at the recent meeting of the State Medical Society, upon the Causes and Prevention of Puerperal Sepsis, lays special stress upon the fact that puerperal fever is surgical sepsis occurring in the parturient woman. The same germs that causes inflammation, suppuration and fever, when inoculated in wounds in other parts of the body will give to the same morbid manifestations when they are allowed to infect the wounds resulting from the separation of the decidua and the placenta, and from the passage of the child through the genital canal, in the act of parturition. These germs are most frequently the streptococcus pyogenes and the pathogenic staphylococcus, the gonococcus and perhaps the bacterium coli communis. He pointed out the fact that pothogenic microorganisms do not long survive in the genital tract, the cells lining the vagina and uterus possessing decided bactericidal powers, and that consequently the parturient canal is always practical sterile. The occurrence of puerperal sepsis is *prima facie* evidence, that pathogenic germs have at some time gained admission

to the maternal parts from without. The infection results almost always from an imperfect aseptic technique on the part of the accoucheur or his assistants in the preparation of themselves or the patient for the lying-in ordeal.

A physician of this age, who attends a case of confinement, with less care and preparation, than he would bestow upon a capital operation, should be held culpable in case complications of a septic nature should arise.

When called upon to atttend a case of confinement, proceed at once upon true surgical principles, and do not deviate from them until the case has terminated. When the third stage has been completed, do not permit a meddlesome or careless nurse to infect your patient while using a catheter or giving a douche. Douches are rarely needed, but when some special indication has to be met by a vaginal or intra-uterine irrigation, give it yourself after preparing your hands and the maternal parts in the proper antiseptic manner. The tube of the irrigator must be sterilized.

Tendon Advancement and Tendon Retroplacement.

Dr. Charles Hermon Thomas read a paper on the above topics before the Ophthalmic Section of the American Medical Association.

Tendon advancement, he said, was to be distinguished from tendon resection or tendon shortening. In the latter two, the stump of the partially severed tendon furnishes the point of attachment of the portions to be brought forward; not so, however, in tendon advancement. This operation is required as a remedy for strabismus, and especially for the results of old operations excessive in their effects. As to tendon retroplacement, it is recommended as a secondary or central procedure to be employed in connection with complete tenotomy, and it is to be practiced at the time and as a part of the original operation.

Dr. Thomas strongly commends the operation for tendon advancement as described and practiced by Dr. Stevens, and performed with the singularly delicate instruments which the latter has devised, saying that Stevens' operation may substitute with advantage all the operations heretofore described. The small conjunctival opening with its minimum of integumental traumatism, the almost total sub conjunctival location of the sutures. the unirritating character of the sutures owing to their small size, the ease and exactness with which it may be practiced, and the freedom from after-irritation during the process of healing leave little to be desired

In a single particular only has any modification of Stevens' method seemed advantageous and that relates to the location of the stitch making the attachment to the globe. The conjunctival stitch which Stevens recommends having occasionally failed, Dr. Thomas has sometimes made a

sclerotic attachment, not involving the conjunctiva. A very small curved needle carrying the 000.000 thread of Stevens' is passed through the center of the extremity of the tendon to be advanced from without inward, and is carried forward to a point within the region denuded by the conjunctival incision and at the point selected for the attachment of the tendon and back of its original insertion. The needle is now made to enter and traverse the superficial layers of the sclerotic, tunneling a distance of 1 or 2 millimeters in length and barely deep enough to make a firm hold, the firmness of which hold may be tested after the emergence of the point of the needle by a lifting motion at the hand of the operator. The result is the tacking down of the tendon in a perfectly definite way to tissues of sufficient firmness to maintain the fixation of the parts involued until healing shall have taken place. It is to be expected that the result obtained at the time of operation will closely approximate the result finally reached. He had usually found a difference under these circumstances of not more than 1° or 2°, The usefulness of such an operation in cases of old post-operative deformities is very great.

Tendon retroplacement is a control procedure applicable in complete tenotomy where accurate dosage is essential. In such cases, it not unfrequently happens that section of a tendon less than entire severance fails to produce a sufficient result, while a complete section results in an excessive effect. For example: in a lateral heterophoria of 15° in each eye, not more than 8°, or at most 10°, can be obtained by partial section, on each eye—an insufficient correction—while complete section would probably result in 20° to 25° of effect in each eye—an over correction. Under such conditions, the correction may be made quantitatively exact by first making the complete section, and then at once advancing the tendon to the proper point, there tacking it down by a sclerotic stitch. This procedure has been found not infrequently useful, at times indeed indispensable.

It will be seen that this operation, considered as a control procedure, differs radically from that often employed, in that the large conjunctival wound and the conjunctival suture are here discarded.

A New Remedy.

It is an acknowledged fact that, under certain conditions, products of metabolism of proteid substances in the economy, viz., uric acid, xanthin, etc., are locked up in the system and deposited in all of the tissues because of their insolubility in acid menstrua; that these deposits occur because of the lessened alkalinity of the blood current; that they are not only insoluble in acid menstrua, but practically so in water; that the crystals of uric acid form the nidus for concretions made up of urates and phosphates of lime agglomerated by combination with mucin or other albuminoid

materials, and these constitute the so-called renal and biliary calculi, the tophi of true gout.

The first step in the removal of these concretions is the rendering of the blood current alkaline. It is essential that the alkalinity shall be of such a character that it will represent the highest solvent action upon the uric acid deposits. Of all alkalies so far tested in this respect, none has so marked a solvent action upon uric acid as lithia. Lithia, however, is useless by itself, since, in order that it may exert any solvent action at all, the medium in which it is to act must be alkaline. This alkalinity of the blood current can best be brought about by the administration of organic acids. By combining lithia with organic acids, it is possible, however, to produce an acid salt which will render the blood current alkaline, and which possesses still greater solvent action on uric acid concretions than is obtained by the administration of carbonate or citrate of lithia alone. Such a salt is found in Tartarlithine, which renders alkaline the blood current, and owing to the liberation of lithia in the nascent state exerts a truly wonderful solvent action on biliary and renal calculi and on the concretions round the joints in cases of gout and rheumatism. McKesson & Robbins. 91 Fulton Street, New York, are the discoverers of this preparation, and will furnish literature on request.

Eye Disease of Dental Origin.

Affections of the Eyes due to diseased teeth are of camparative frequent occurence. The writer has observed cases of Optic Neuritis, Choroiditis, Conjunctivitis etc., that had resisted all ordinary treatment and in which, improvement immediately followed the removal of diseased teeth. The following clinical reports are taken from an instructive paper in The Annals of Ophthalmology and Otology, Oct., written by A. A. Foucher, M. D., Montreal.

Case 1.—A man, 50 years, right eye became inflamed on exposure to cold. Upon examination a few days afterward, a series of small vesicles were seen on the upper external margin of the cornea. Conjunctiva and sclera both injected. Tension under normal. The ascending branches of frontal nerve posessed an exquisite sensibility. No other cause could be assigned by patient to explain his condition than taking cold. Upon examination, a large decayed and half broken molar was found. Medical treatment was pushed for eight days without benefit. The tooth was now removed and in twenty four hours the patient was entirely free from pain, and in four days all passed off.

Case 2.—A woman, 51 years of age presents for treatment having neuritis of left optic nerve: can count fingers at two feet.

The left orbit is tender. Three decayed teeth are found on this side in upper jaw. Abscess is also present at the roots of these teeth. After

extraction of the teeth oleate of murcury is administered with iod. of pot. In eight days vision has so far improved as to enable the patient to read $\frac{5}{50}$. In this case no other cause aside from the teeth can be found to explain the existence of the neuritis.

Case 3.—Girl 21; right eye blind; no light perception; pain in eye marked. Ophthalmoscope reveales optic nuritis. No trace of constitutional disease can be found. Periostitis was clearly indicated by the pain induced by the least pressure on this eye or any part of the orbit. The teeth being in bad condition she was referred to a dentist, and a wisdom tooth was found very sensitive. It was removed. Next day patient begins to see her fingers, and in three months vision is normal. She was treated by mercurial frictions and iodide of potassium internally. The doctor concludes his paper by advising his readers not to lose sight of the fact that diseased conditions of the eye, ear, nose, throat, or adjoining sinuses can be induced by defective teeth.

An interesting case came under our observation. A physician, aged 55, complained of failing vision; optic neuritis in both eyes was clearly made out by ophthalmoscope. No cause could be assigned to account for this invasion. For one month he was subjected to the classic treatment for optic neuritis, his condition continuing to grow worse. As a last resort he was advised to have his teeth examined, when several were found badly diseased. On their being removed his optic neuritis subsided and in a few weeks he resumed his practice.

Massage for Ear Disease.

Dr. Louis J. Lautenbach (Proceedings of the Otological Section Amer. Med. Asso., Jour. Am. Med. Asso., Oct. 26th, 1895,) gives the results of his massage methods as employed for the treatment of ear disease, explaining the action of pneumo-phono- and mixed-massage on the drum head, middle and internal ear. He employs his methods through the external auditory meatus, fitting his eartubes to the meatus in such a way as to make an air tight joint. By pneumo-massage he means that created by impacting a column of air upon the ear structures and then relieving the pressure. By phono-massage he allows sound to impinge upon the ear and then discontinues it. By mixed massage he means the impacting of the air column while at the same time the sounds pass into the ear. He uses this impaction of air or of sound or of both from about 40 times per minute up to several hundred per minute.

He has found that membranous thickenings even with attachments have been helped, and rigid ossicles made mobile, and believes that this method marks a distinct and positive advance in ear therapeutics, that ossicular operations recently so much in vogue should be performed only after such treatment; the results of treatment in many of his cases sur-

passing that of an operation. One case of tinnitus, in which a Philadelphia ear surgeon insisted upon an operation, after treatment by the pneumo-phono-message method the tinnitus disappeared and the watch hearing improved from hard contact to 38 ins.

He finds that even on the internal ear, and probably on the auditory centre and the connecting nerve it exerts a favorable influence by stimulating these structures, improving their circulatory supply and thus causing diseased and thickened tissues to break down—the effete particles enter ing the circulatory stream and being carried off. As he expresses it:

"The massage properly applied relieves the pressure on the internal ear, causes an active disturbance and circulation of the labyrinthine fluids, stimulates the periphral ends as well as the body of the auditory nerve, and improves the blood circulation."

So far as the practical results are concerned it is interesting to note that he states that whenever he can find good bone conduction he does not consider that there is an insuperable obstacle to the improvement of hearing. Of interest in this connection are the results he obtained with the method in six deaf and dumb children, all of whom showed some improvement, in some more marked than in others. In one of these, a girl of 12 years, who had become deaf during an attack of scarlet fever in her 3d year, after a years treatment he not only had her hear the ordinary street noises, to all of which she had been previously oblivious, but to hear conversation so well that she attended as a regular pupil one of the puplic schools of Philadelphia.

Throughout the paper Dr. Lautenbach properly indicates that the basis of future ear treatment will be a mechanical one, and to us it seems as if he has made a decided progress in this direction—the work and results obtained with his deaf and dumb patients indicating in some degree the marked advance of his methods over the former treatment, or rather the want of it—all of us well knowing that the only relief afforded these unfortunates coming not from the physician, but from the lip-reading teacher or other instructor. The stereotyped prognosis of "there is no use of doing anything in the way of treatment, as it will bring forth no results, go take the child to a lip-reading school or a deaf and dumb asylum," being the only result of such a child's visit to an ear specialist.

The explanation of his method and its mechanical results being to our mind perfectly rational, it looks very much as if this branch of medicine were approaching the dawn of a new day.

We received a nice little pamphhlet from Schulze–Bergr & Koechl of New York, on Diphtheria Antitoxine—"Behring." It cites many cases where antitoxine treatment was most successful, and has also other interesting matter.

Some Effects of Ammonol, Noted at Roosevelt Hospital, New York.

Of the later coal tar preparations there are few which come so well recomended as Ammonol. Ammonol is chemically an Ammoniated-phenyl-acetamide. Its composition is such that it is readily absorbed, and so greatly facilliates its speedy action; its general action being that of a nerve sedative, giving relief in the condition of nervous exhaustion brought on by over-study, or protracted worry and anxiety. In several cases of nervous prostration which have been reported lately, the administration of gr. x, three times each day was followed by results which were, to say the least, gratifying. In cases of malarial fever its use has been extensively tested. A case which the writer had the pleasure of observing shows its practical value in such disorders.

A. M., a girl of seventeen years, when seen by the physician had a temperatuae of 104.2. She was delerious and exhibited all the symptoms of malarial fever in the severest form. Ten grains of Ammonol was administered and in fifteen minutes a second ten grain dose was given. Thirty minutes after the last dose the temperature had fallen to 100.6 and at the end of an hour the thermometer registered only 99. Perspiration was free, shortly after the administration of the second dose and the patient fell into a gentle sleep,awakening at the end of a half hour and again at an hour, when a dose of five grains was given and the patient again slept, awakening in six hours. Treatment was continued in five-grain doses until absolute recovery was attained. In Dysmenorrhœa the action of Ammonol causes it to be regarded almost as a specific.

L., aged 20, was seen on the second day of her menstrual period; she had always suffered some little pain, yet owing to a very debilitated condition generally the pains seemed to be increased greatly and her suffering was intense. Ammonol gr. xx was given in two doses, five minutes intervening; in fifteen minutes all pain had disappeared; there was no recurrence of the trouble throughout the period.

At the usual time the next month when she felt the first twinges of pain she took the Ammonol as directed and escaped all pain.

This is one of many cases reported. Ammonol is used by many as a hypnotic, being substituted for Trional and Sulphonal.

Its use in cases of intoxication has been marked, and seems to produce much better effects than the various "bromo's" with which the country is flooded.

During the recent yacht races the writer had occasion to note its use in "mal de mer;" fifteen grains of the powder (in eight different cases) relieved the nausea at once and the patients were enabled to resume the deck in a very few minutes; (in the worst case fifteen.)

Ammonol has also been tried in the various troubles of the respira-

tory tract. In chronic asthma it gives immediate relief when two gr. v tablets were given.

Of late various excerpta have appeared, among which Ammonol salicylate is mentioned. This preparation contains the salicylic acid in a modified form, which does not disturb the stomach in any manner whatsoever.

Owing to the fact that these remedies have been but recently put on the market we are unable to cite many cases. It has been my privilege to observe but two cases in which this latter remedy was tried. The Ammonol salicylate given in a gr. x dose to a patient suffering acutely from muscular rheumatism; the pain was relieved within ten minutes after the administration of the powder (a peculiarity of the powdered Ammonol salicylate is that it is instantly dissolved when placed on the tongue). The use of the remedy has been continued for the past two months, with the result that the patient is better than he has been for years and the pains that have so distressed him are entirely gone, and in no way has his digestion been impaired,

A preparation of Ammonol, Codeine and Camphor has been found of good effect in simple coryza, and in fact has been tried with the best of results in both bronchitis and laryngitis. Among other of the new combinations is Ammonol Bromide, a hypnotic which has met with great success.—The Æsculapian of the College of Physicians and Surgeons, Roosevelt Hospital, New York.

How to Treat a Cough.

In an able article under the above heading in the New York Medical Journal, Edwin Geer, M. D., Physician in Charge of the City Hospital Dispensary; also Physician in Chief, Outdoor Department, Maryland Maternity Hospital, Baltimore, writes:

"The object of this brief paper is not to try to teach my colleagues how to treat a cough, but simply to state how I do it, what good results I get, and to call their attention to those lighter affections of the throat and chest the principal symptom of which is an annoying cough, for which alone we are often consulted. The patient may fear an approaching pneumonia, or be anxious because of a bad family history, or the cough may cause loss of sleep and detention from business. What shall we do for these coughs? It has been my custom for some time to treat each of the conditions after this general plan: If constipation is present, which is generally the case, I find that small doses of calomel and soda open the bowels freely, and if they do not, I follow them with a saline purgative; then I give the following:

℞ Antikamnia and codeine tablets, No. xxx.
Sig.: One tablet once every four hours.

"The above tablet contains four grains and three-quarters of anti-

kamnia and a quarter of a grain of sulphate of codeine, and is given for the following reasons : The antikamnia has a marked influence over any febrile action, restores natural activity to the skin, and efiectually controls any nervous element which may be in the case. The action of the codeine is eqally beneficial, and in some respects enforces the action of its associate. The physiological action of codeine is known to be peculiar, in that it does not arrest secretion in the respiratory or intestinal tract, while it has marked power to control inflammation and irritation, It is not to be compared with morphine, which increases the dryness of the throat, thus often aggravating the condition, while its constipating effect is especially undesirable."

The Treatment of Uterine Hæmorrhage During the last two Months of Pregnancy.

Dr. J. W. Smyly believes that uterine hæmorrhage occurring during the last two months of pregnancy may result from a wound or disease ; but in the vast majority of cases it is due to the premature separation of the placenta.

We distinguish those placental hæmorrhages which proceed from the normal site as accidental, and those from an abnormal site as unavoidable. Anatomically we should consider all cases in which the placenta dips down below the contraction ring as examples of placenta prævia ; but clinically, the majority of these cannot be diagnosed as such, and are, therefore classed among accidental hæmorrhages.

The diagnosis of placenta prævia depends upon hæmorrhage occurring toward the end of pregnancy or the commencement of labour, and feeling the placenta through the cervix or os uteri.

It is difficult to account for the hæmorrhages which occur before labour begins.

Possibly they are due to a disproportion between the placenta site and the placental area.

When they commence with labour, they are due to the physiological process by which the ovum is separated from the lower part of the uterus. At the commencement of labour the lower uterine segment is hemispherical. and is occupied by the presenting part of the fœtus, through which it directly receives the uterine pressure, and over which it is gradually drawn upward being converted as the os dilates into a cylinder, equal in circumference to the presenting part of the child ; at the same time, the bag of the waters is pressed down into and dilates the cervical canal, and the external orifice.

So long as the membranes remain intact, the ovum is driven down by the uterine contractions, the lower segment at the same time is drawn upward, a separation takes place between the two, and the lower pole of the ovum is cast free from its uterine connections ; this separation begins

at the os internum and gradually extends upward toward the contraction ring.

When the membranes rupture, however, the fœtus only is driven downward, the membranes being drawn upward, with the uterine wall to which they are attached. Should the placenta, which is a specially modified portion of the fœtal envelopes, be developed at the lower pole of the ovum, it will be separated with the latter, and hæmorrhage occurs; as the detachment extends, more vessels are opened, but as the detachment may cease with the rupture of the membranes, so may the bleeding also.

The Curability of Sympathetic Eye Inflammations.

In the November number of The Annales D'Oculistic, Prof. Laquer, of Strasbourg, gives very interesting histories of five cases of serious inflammation of the deep structures of one eye following the destruction by trauma of its fellow. In each case some vision was preserved in the sympathizing eye. The line of treatment was enucleation of the injured eye, followed by mercurial inuctions and injections of pilocarpine solution beneath the conjunctiva of the sympathizing eye. After several months' waiting for all inflammation to disappear, operative measures were resorted to in order to make a clear pupil.

As a result of his study of these cases and also of the recent literature of the subject, the Professor concludes that in all cases of injury to an eye, totally destroying sight, it is best to remove the damaged eye at once, but if sight be not utterly destroyed it will be best to institute active antiseptic treatment, as this will hasten healing, and, at the same time, lessen the inflammation. He has observed a marked diminution in the number of patients suffering from sympathetic inflammation of the eye calling on him for relief, and he accounts for this by calling attention to the fact that antiseptic treatment of all wounds is the rule of the profession.

Renal Disease.

Have practiced medicine thirty years, and during that time I have constantly suffered from disease of the kidney—passing calculi. When I procured a bottle of Sanmetto I had been down over two months. I took two teaspoonfuls four times a day. It promptly relieved me. I think Sanmetto is the finest remedy that has ever been produced for diseases of the genito-urinary organs. Were it necessary I would give the full history of my case. Sanmetto surely can never be improved upon. In my long run of practice I have used hundreds of remedies for such cases, but none equal to Sanmetto.

Waynesville, Ill. J. C. Scott, M. D.

What the Patient Expects and What We are Able to Do in Chronic Catarrh of the Tymanum or Middle Ear with Deafness.

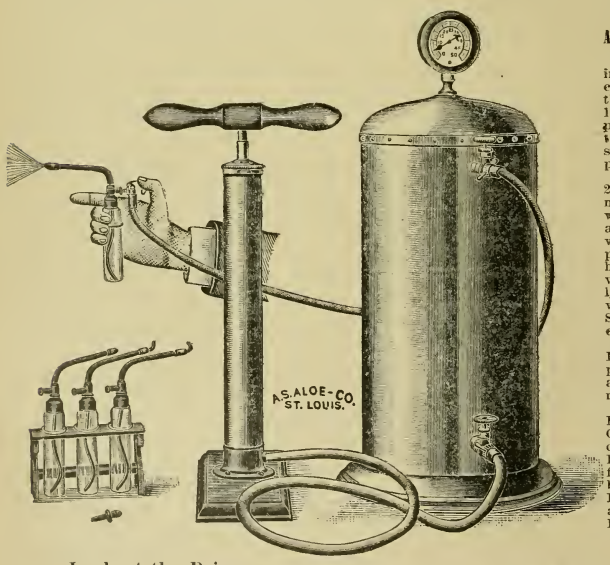
Dr. Lawrence Turnbull, of Philadelphia, has written in a very attractive style a valuable paper which he read at the Forty-sixth Annual Meeting of the American Medical Association, at Baltimore, Md., and published in the Journal, with the above title. The following is an abstract omitting the cases:

Dr. Turnbull states that in the treatment of all chronic diseases of from six months' to as many years' duration, the prognosis, or what we are able to do, depends upon many factors. The first, as a rule, is the duration; the second is if the case is functional; the third, if organic, it is incurable. This not only applies to the ears, but the lungs, liver, kidneys, eyes and brain.

Can we improve them? We can, if the disease is functional and not organic. When the patient with organic disease of the lungs applies, not for a cure, but for relief, we frequently are able to diminish the cough and expectoration, build up the general health, and by changing the habits and climate, improve the case. So also with the liver, kidneys and brains. In the case of the eye, sometimes by skillful and delicate treatment or an operation we are able to give one sixth, one-eighth, one-fourth or one-half the amount of vision, by which, with the assistance of glasses properly fitted, the patient is able to make his way along, and even to read and work. This slight improvement is almost always accepted with cheerfulness and even gratitude. The most unreasonable of all patients to be treated, both in public and private, are the deaf. They come to the aural surgeon and expect a *cure*, not relief—and the general public and the quack encourage them in this demand. Many of them come with varying deafness, from *nil*, to hearing the ordinary watch close to the ear, and when by prolonged treatment, they are able to hear from ten to twelve inches, or more, also one person's conversation, or, by the aid of the trumpet, ordinary conversation, they are never thankful, but state that So-and-So was cured of deafness, not knowing that in our list of diseases of the ear causing deafness there are hundreds of cases from cerumen or ear wax. resting on the drum membrane, or a slight catarrh in the nose, throat or Eustachin tube, to disease involving the internal ear, auditory nerve or brain. There are a number of inherited diseases of the ear and those contracted by impure habits, which cause most profound deafness never to be cured when of long duration. Then there is accompanying these forms of deafness, constant and presistent noises termed tinnitus aurium, or ringing sound, which as a rule is absolutely incurable after months of careful treatment. This tormenting distressing condition which is only a symptom of a deeper form of the diseased ear, causes great unhappiness in the individual. This class of patients is of a very jealous disposition,

ready to quarrel even with their best friends; they also imagine without cause that persons are talking about them, stating somethisg wrong be cause they do not hear. With the assistance of certain medicines, and true desire on their part, these sounds may be ameliorated, and if the patient is willing to aid the physician, not permitting the mind to dwell upon them, great comfort may be received. If, instead of this effort on their own behalf, and a willingness to follow the counsel of their friends, and aural surgoen, they become morbid and irritable, keeping by themselves, avoiding all pleasant company and amusements which could be had by the aid of the hearing trumpet, or still better, hearing with their eyes, these noises will sometimes become unbearable and a form of insanity ensues, and in some very rare cases in an insane moment of desperation they commit suicide. That is the reason why they should avoid the causes which increase it. This is no fancy sketch, but sober truth. No wonder the aural surgeon is pleased to be able by various operations to endeavor to relieve them from this dreadful form of disease, as well as aural vertigo, in which the patient is liable to fall forward, or sometimes backward at the risk of life."

France has two medical men who are cabinet ministers—Dr. Viger, Minister of Agriculture, and Dr. Combes, Minister of Public Instruction.



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The Receiver is 22 inches high and 10 inches in diameter, is thoroughly tested to 100 pounds hydraulic pressure, warranted to be air tight and to stand the maximum pressure of 50 pounds.

The Pump stands 21½ inches high, is mounted on a neat wood base, 6x12 inches and is particularly well adapted for the purpose designed, having most excellent valves, thereby greatly increasing its working capacity. Size, 2 inches in diameter with 16-in. stroke.

Both Receiver and Pump are nickel-plated and well made and finished in every respect.

PRICE of PUMP, Receiver and Test Gauge complete, including 4 feet Lined Rubber Tubing, and 4 feet Silk-covered Rubber Tubing, a Set of Davidson's Sprays, and an improved Davidson's Cut-off,

$22.50.

Look at the Price.

A. S. ALOE COMPANY,
Makers of Superior Surgical Instruments, ST. LOUIS.

The Fatty Degeneration and Its Masquerades.

Ephraim Cutter, M. D., LL.D., of New York, in the Medical Age, Oct. 14th, 1895, states (the following propositions abstracted from the above):

Causes. 1, Retarded and impeded functions including the circulation of blood, nutrition, osmosis, etc.—English idea. 2. Fatty food in excess —conventional idea. 3. Carbohydrates and all foods, animal and vegetable, taken in excess that ferment in the alimentary canal and produce carbonic, sulphydric and hosphydric acid gases which paralyze parts near and remote, and thus produce stases in which normal nutrition chemically and biologically degenerates into fats. 4. Poisoning by phosphorus, yellow fever, scarlet fever, &c. 5. Faradism in excess. 6. Normal fatty degeneration. (a). In old age. (b). Uterine subinvolution. (c). Corpora lutea. (d). Fatty epithelia of the mammæ, liver, ceruminous and sebaceous glands.

Diagnosis. (a). Amyloid bodies in blood and urine and on skin. (b). Fat globules in leucocytes. (c). Oil subcutaneous in blood specimens (d). Oil in feces. (e). Albumen in urine. (f). Kidney casts of all kinds. (g). Often false casts in urine. (h). Often protoplasmic catarrh in urine. (i). Fatty epithelia in urine. In doubtful cases it is necessary to examine urine voided on rising from bed in the morning for seven successive days. (j). Fatty degeneration of muscular tissue extracted by a spear. (k). Free oil globules in urine. *Other Signs.* (a). Pain such as found in angina pectoris and in the doloureaux. The microscope by blood morphology distinguishes from rheumatic pains. (b). Anæsthesia on the principle that pain is due to partial paralysis. Complete paralysis—no pain. Smite with a birch switch you partially paralyze and pain. Smite with a crow bar you wholly paralyze with no pain.

Masquerades. Amyloid disease, apoplexy, retinal apoplexy, amaurosis, glaucoma, angina pectoris, arcus senilis, atheroma, aphasia, Bright's disease of kidneys, Bright's disease of lungs, broken heart, cataract, intestinal concretions, gall stones, heart failure (a double masquerade), melancholia, dementia, neurasthenia, paraplegia, paresis, hemiplegia, softening of brain, tic doloureaux, rupture of muscles, impeded circulation from embolism, senile gangrene, pernicious anæmia, shaking palsy, shock developing paralysis and Bright's disease, puerperal convulsions, retinitis albuminuria, rupture of uterus, general hyperæsthesia, hæmophilia.

Medical nomenclature should not allow these masquerades.

Management. (a). Stop causes—the foods named and physical ob struction such as tight environments to allow free and clear circulation. (b). Quicken circulation by broiled and roast beef, hot water, and forms of motion as galvanic electricity, passive exercise, heat, light, music, horse back riding, trolley car riding. and (c) *Save force to run the body* which is wasted by useless expenditures in worry, work or pleasure. Rest, keep

clean. (d). Confer force by massage and laying on of hands of those who are well and not tired; all masseurs need watching. The simple presence of some will confer force on the sick. Physicians learn this in treating grave chronic disease. (e). Strengthen the heart by putting the feet higher than the head, by removing with hot water the abdominal gases which more or less are osmosed and paralyze the heart, by laying on of hands over heart and stomach; by hot corn meal in cotton bags over heart and stomach; by absorbing atheromatous and calcareous deposits of the coronary arteries by treatment specially with distilled water hot, by going up stairs counting ten at each step; by drugs to be used only as needed, and then used. Medicines are never better employed than when reinforcing systemic plans of treatment.

Remark—music dilates the capillaries, increases the force and beat of the heart. It is pleasant medicine for the fatty ill.

Six Hundred ($600) Dollars in Prizes.

The special attention of our readers is called to the advertisement of the Palisade Manufacturing Co. with the above title, on page 119, in this issue.

The prize contest which this well known firm announces will no doubt attract a great deal of attention, and result in the submission of many articles of merit on "The Clinical Value of Antiseptics both Internal and External." The prizes are extremely liberal, and the well known professional and literary eminence of Dr. Frank P. Foster, the talented Editor of the "New York Medical Journal," who has kindly consented to act as judge, is a sufficient guarantee of the impartiality to be observed in the awarding of the prizes.

We are assured that there is absolutely "no string" attached to the provisions of this contest, and any physician in good standing in the community is invited to compete on equal terms with every other competitor.

Further particulars as to conditions, etc., can be obtained by addressing the above named firm.

Battle & Co., St. Louis:—Some time ago you sent me specimens of your preparations of Bromidia, Papine and Iodia. Unlike many who send out specimens you sent an amount large enough to really make a trial with. I had used the two first named a little, but having them more forcibly brought to mind, and recognizing the fact that I had them on trial, I watched their action more carefully. I can say that they are both elegant and health bearing. Bromidia I used on a man verging on Mania a Potu. Papine on a nervous Typhoid woman, and Iodia on a young man, who had carried boils for 3 years as the result of Ivy poisoning. The preparations were a decided success in every instance.

Yours truly, E. C. Adams, M. D.

Watertown, S. D., December 10, 1895.

A Few Crumbs About Typhoid Fever.

Dr. J. N. Baughman (before Kentucky State Medical Society, 1895,) read a paper upon the above subject, in which he first reiterated the fact that typhoid fever was caused by the Eberth bacillus in Peyer's and the solitary glands of the small intestine. He stated that the only way in which the disease could be communicated from one person to another was by the dejecta, either from the alimentary canal or urinary organs obtaining a foothold in the small intestinal glands of another person, and stated that it was almost criminal negligence on the part of any practitioner who did not instruct his nurses in regard to disinfecting this dejecta and using every precaution to prevent its spread. He has never seen the rose colored eruption, but always has seen iliac tenderness, tympanitis, gurgling, and the morning temperature higher than that of the evening. He has generally seen diarrhœa, but some cases are constipated. The disease is mostly in youth and middle age, but he has seen undoubted cases in infancy. The death rate should be almost *nil* with our recent therapeutics. The treatment should begin by having the best, cleanest and lightest room possible, with everything about the room and patient in a strictly clean condition. Liquid diet should be used throughout the disease, milk standing at the head, and it should be boiled to render it free from germs. The fever should be kept below 103° F., by the liberal use of cold bathing. Antifebrine is used as an internal antipyretic in the first stages of the disease. The first treatment is five grains of calomel to arouse the secretions and clean out the alimentary canal. Then the entire intestinal tract is kept in as perfect an aseptic state as possible by salol, listerine and salicilate of soda, and other antiseptics, which will cure the ulcerated Peyer's glands as quickly as an ulcer upon the outside of the body. Coffee is used as an antiseptic and stimulant. Alcohol is used to tone up the heart's action, which so often is the cause of death. Opium is given to produce quiet and control the bowels ; it is also the only remedy in hemorrhage, though fld. ext. ergot is given in teaspoonful doses to assist the opium. Oil of turpentine is given where the tongue is dry and hard, and the low typhoid type is observed. Night sweats are relieved by elixir vitriol and cold sage tea.

The Significance and Treatment of Blepharitis.

In a clinical lecture, published in Medicine, October, 1895, Dr. H. Gradle emphasizes that blepharitis deserves more attention than it usually receives in text books on the eye, on account of its frequency, persistence and dangers. He distinguishes between the squamous form, the ulcerative type and the interstitial inflammation of the edge of the lid. The first variety is sometimes the over-looked cause of asthenopia ; the ulcer-

ative and the interstitial forms lead occasionally to corneal ulceration. The interstitial form is often followed in the course of years by shrinkage of the tarsus and inversion of the lashes.

Blepharitis, in any of its forms, is often maintained by one (or more) of the following pre-existing annomalies, and if such be the case it can only be cured by the removal of these predisposing conditions. These are: 1. Diseases of the tear passages; 2. Annomalies of refraction, causing eye-strain; 3. Insufficient length of the skin of the lid, and 4. Nasal disease. While the first and second of these conditions are commonly known, the third, originally described by Huchs, has not received much attention. If the distance be measured from the eye-lashes to the eye-brow when the eye is closed and the skin relaxed, and again when the skin is stretched by pulling the lashes down, while the brow is up, with the fingers, the first measurement is normally less than two thirds of the second. If the difference between the length of the relaxed and stretched skin is less than one-third, that person's lids are apt to gape during sleep, which leads to persistent irritation. In moderate cases this condition can be removed by the use of a bandage during the night for a few weeks.

The relation of nasal disease to blepharitis is not generally known. Many cases of blepharitis begin during an acute catarrh, or are aggravated by it. Very persistent blepharitis, especially if one-sided, is sometimes found associated with nasal disease, which may be either an obstructive lesion or ozæna. Some of these cases do not get well unless the annomally is cured.

For the squamous form of the disease, the author recommends an ointment containing two per cent. each of precipitated sulphur and resorcin (in vaseline) as superior to the more familiar mercurial salves. Uncomplicated cases may get well in from two to three weeks, although a more persistent treatment is required to prevent relapses. In the ulcerative form the crusts must be thoroughly removed, whereupon the ulcerations will heal rapidly when touched with nitrate of silver, using at first the stick, and later on weaker solutions. The interstitial type, which can exist alone or may complicate the other forms, depends usually on the previously mentioned conditions and rarely yields without attention to the latter. It is best treated locally with the yellow oxide of mercury, or a (5 to 8 per cent.) pyrogellic acid ointment. But it is not always possible to cure the inveterate forms of interstitial blepharitis.

I have found Kola-Koloid of benefit to myself, and during that time of trial to the mental and physical condition of all housewives, viz., house-cleaning, my wife has found it invaluable.

William E. Anthony, M. D.

Providence, R. I., May 1, 1895.

Palmettine Hypophosphites.

A VITALIZING, NUTRITIVE TONIC,

This preparation combines the specific properties of fresh Saw Palmetto Berries, with the nutrient and tonic qualities of the Hypophosphites of Iron, Lime, Potash and Manganese, and is entitled to rank as the most valuable agent in reconstructive and invigorative therapy.

Each Fluid Ounce contains :

Saw Palmetto Berries, fresh,..... 120 grains
Hypophosphite Lime,..... ..... 1½ "
Hypophosphite Iron, Potash and Manganese, each, 1 grain.

Saw Palmetto has a pronounced action upon the glands of the reproductive organs, tending to increase their activity and promote their secretive faculties. It has recently come into great prominence with the profession as a most valuable remedial agent in prostatic troubles, presenility, difficult micturition, irritated bladder and inflammation of the Urethra.

Combined with the PURE SALTS of Hypophosphites its stimulating and soothing influence over the mucous membranes of the respiratory and the intestinal tract, render it a very valuable remedy in the treatment of chronic Bronchitis, Catarrhal, Scrofulous and Tubercular affections. It relieves coughs, improves the appetite and aids digestion.

DOSE.—One to two teaspoonfuls, or as directed by the physician.

PALMETTINE HYPOPHOSPHITES WITH COD LIVER OIL.

The disagreeable taste of both the Cod Liver Oil and the Saw Palmetto are completely disguised without sacrificing in the smallest degree the medicinal virtues, and the combination is identical with our PALMETTINE HYPOPHOSPHITE, with the addition of 25 per cent. of Cod Liver Oil as represented by its active principles.

We confidently believe this combination will be found to be the most superior remedy in lung and throat affection.

Dose same as Palmettine Hypophosphite.

☞ **Reports of Cases, and Correspondence Invited.**

The Virginia Pharmacal Co.

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Mention Charlotte Medica ournal.

Some Fractures and Epiphyseal Separations in Children.

Dr. John F. Erdmann (New York Medical Record,) in a paper on the above subject, mentions the fact that in fractures of the clavicle in children, frequently no objective symptoms are present until eight or ten days have elapsed, giving as a reason of this condition, the following:

Owing to the incomplete laceration of the periosteum at the seat of fracture, the fragments are held in apposition by that portion of the periosteum still intact acting as a fibrous splint. That this condition prevails until, as a result of manipulation by the attendants of the child, or as a result of the activity of the child, the remaining intact periosteum becomes torn, and probably also the few long bands of connection that may have been intact at the time of the injury, allowing the displacements to take place that is almost invariably formed in these cases in the early part of the second week following the injury.

Under the head of Epiphyseal Separation of the Upper Epiphysis of the Humerus, he presents the histories of four cases, one of which after four years, shows three-quarter inch shortening. The author recommends in irreducible cases cutting down upon the head of the humerus, using the ordinary guide for an excision, and suturing the upper epiphysis to the shaft through the capsule of the joint and the fibro-periosteal covering of the upper end of the shaft.

The histories of several cases of fractures and epiphyseal separations of the lower end of the humerus, in addition to a case of fracture of the Epicondyle, are also presented in the paper. A special feature of the treatment of the cases occurring in that portion of the humerus is the position in which the forearm is placed. The author strongly advocates placing the forearm in almost complete extension with slight abduction, so as to properly preserve the carrying functions of the arm.

Dr. Erdmann also presents the history of a rare case of Multiple Epiphyseal Separation occurring in a girl, in whom separations of the lower epiphysis of the humerus and of the lower epiphyses of both bones of the forearm, had occurred as a result of falling down a flight of stairs.

The usefulness of good Hypophosphites in Pulmonary and Strumous affections is generally agreed upon by the Profession.

We commend to the notice of our readers the advertisement on page 13 of this number. "Robinson's Hypophosphites" also "Robinson's Hypophosphites with Wild Cherry Bark" (this is a new combination and will be found very valuable) are elegant and uniformly active preparations; the presence in them of Quinine, Strychnine, Iron, etc., adding highly to their tonic value.

HYDROZONE

IS THE STRONGEST ANTISEPTIC KNOWN.

One ounce of this new Remedy is, for its Bactericide Power, equivalent to two ounces of Charles Marchand's Peroxide of Hydrogen (medicinal), which obtained the Highest Award at the World's Fair of Chicago, 1893, for

Stability, Strength, Purity and Excellency.

CURES DISEASES CAUSED BY GERMS:

DIPHTHERIA, SORE THROAT, CATARRH, HAY FEVER, LA GRIPPE, — OPEN SORES: ABSCESSES, CARBUNCLES, ULCERS,—INFECTIOUS DISEASES OF THE GENITO-URINARY ORGANS,— INFLAMMATORY AND CONTAGIOUS DISEASES OF THE ALIMENTARY TRACT: TYPHOID FEVER, TYPHUS, CHOLERA, YELLOW FEVER, — WOMEN'S WEAKNESSES: WHITES, LEUCORRHŒA,—SKIN DISEASES: ECZEMA, ACNE, ETC.

GLYCOZONE

Both Medal and Diploma

Awarded to Charles Marchand's Glycozone by World's Fair of Chicago, 1893, for its powerful healing properties. This harmless remedy prevents fermentation of food in the stomach and it cures:

DYSPEPSIA, GASTRITIS, ULCER OF THE STOMACH, HEART-BURN, AND ALL INFECTIOUS DISEASES OF THE ALIMENTARY TRACT.

Send for free 152-page book giving full information with endorsements of leading physicians. Physicians remitting express charges will receive free samples.

AVOID IMITATIONS.

Hydrozone is put up only in small, medium and large size bottles, bearing a red label, white letters, gold and blue border, with signature.

Charles Marchand's Peroxide of Hydrogen (medicinal) is put up only in 4-oz., 8-oz., and 16-oz. bottles, bearing a blue label, white letters, red and gold border, with signature.

Glycozone is sold only in 4-oz., 8-oz., and 16-oz. bottles, bearing a yellow label, white and black letters, red and blue border, with signature.

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LISTERINE.

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LISTERINE is of accurately determined and uniform antiseptic power, and of positive originality.

LISTERINE is kept in stock by all worthy pharmacists everywhere.

LISTERINE is taken as the standard of antiseptic preparations: The imitators all say, "It is something like Listerine."

:o:

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LITHIATED HYDRANGEA.

A valuable Renal Alterative and Anti-Lithic agent of marked service in the treatment of Cystitis, Gout, Rheumatism, and diseases of the Uric Diathesis generally.

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LITERATUE

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TABLE OF CONTENTS FOR JANUARY, 1896.

ORIGINAL COMMUNICATIONS— PAGE.

Surgery versus Electricity—By Edward Sanders, M. D., New York,..... 17
Toxins and Antitoxins—The Modus Operandi of Modern Serum Therapy—By Hugo Engel, A, M., M. D..... 24
Acute and Subacute Diseases of the Upper Respiratory Tract—By G. B. Sweeney, M. D., Pittsburg, Pa..... 38
The Coexistence or the Complication of Anal or Rectal Fistula with Phthisis Pulmonalis; Its Pathology, Treatment and Cure, Considered with Reference only to Such Connections—By William Bodenhamer, M. D., LL.D., New Rochelle, N. Y..... 43

EDITORIALS—

The Battle of Clubs 57
Fake Devices for Restoring Impaired Hearing,..... 58
Medical Journals and Their Advertisers..... 59
Hygiene and Therapeutics..... 60
The Old and the New,..... 61
Shorthand Writing Among Doctors..... 62
A City Hospital for Charlotte..... 62
Color-Music: Another Sense..... 63
Dr. Barringer's Lecture..... 64
Measles Throughout the Country..... 64
The Need of More Hygiene in Rural Districts..... 65
Dr. R. L. Payne Goes to Norfolk, Va..... 65
The Effects of Diet on Cutaneous Disorders..... 66
Lumbarin 67
Food for Young Children..... 67

BOOK REVIEWS 68
REPRINTS..... 76
LITERARY NOTES,..... 78
MISCELLANEOUS..... 82

In the advertisement in this issue of Theodore Metcalf Co., of Boston, there will be found an offer that is exceedingly liberal, and one our readers should avail themselves of. It is not often that $15 is exchanged for $5.

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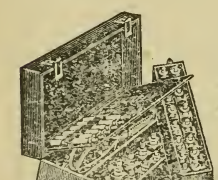

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The Journal of Insanity opines that "genius oftentimes seems to have about it a touch of madness, and insanity sometimes shows streaks of genius, but the relation between the two is accidental. If this has been said before, it will do no harm to say it again, as an antidote to the mixture of each to which Nordau and Lombroso and others are just now treating the civilized world."

The Post-Graduate asserts that the bicycle has cut down the scientific activity of the New York profession at least 50 per cent. already.

The Charlotte Medical Journal.

VOL. VIII. CHARLOTTE, N. C., FEBRUARY, 1896. No. 2.

Some Misleading Medical Misnomers.

By S. V. CLEVENGER, M. D.,

Professor of Nervous and Mental Disease, Harvey Post-Graduate Medical School; Alienist and Neurologist Reese and Alexian Hospitals, Chicago; Late Medical Superintendent Illinois Eastern Hospital for Insane, and Pathologist County Insane Asylum of Chicago: Author of Comparative Physiology and Psychology, Spinal Concussion, etc.

In the Boston Medical and Surgical Journal, of September 4th, 1890, in a discussion of Erichson's disease as a form of the traumatic neuroses, I inveighed against attempts at descriptive naming, and in this paper will further advance reasons in that direction. Spinal concussion, or concussion of the spine, had for a quarter of a century been confused in court contests as a cause and an effect. Erichson had described certain symptoms that were mainly subjective and that were sometimes the *result* of a concussed spinal column. Lawyers occasionally delight in befogging matters in their clients' interests, and the fact that a concussion of the spine was alleged as *causing* symptoms known as spinal concussion enabled them, when occasion arose, to bamboozle witnesses, juries and sometimes the judge. The usual method was to commit the physician, on cross examination, to statements that concussion of the spine could *cause* paraplegia, spinal myelitis, meningo-myelitis, compression symptoms, etc., and then defy the witness to show such symptoms in the plaintiff, whereas the declaration had probably specified, in addition to the venerable jumble "sick, sore, lame and disordered," that "spinal concussion" was the disorder from which the injured person was suffering. In the restricted sense, as a symptom group, the term was frequently used, and if the doctor on the stand did not keep his wits about him he would be liable also to exclude from "spinal concussion" as an *effect* the paralytic and inflammatory troubles that were of easier demonstration, but which could be set up by the *cause* spinal concussion. So on the title page of a book, published in 1889, as well as throughout the work, I tried to make the matter clear; but railway attorneys and surgeons often appear to have greenbacks of large denominations interposed between their vision and that title page: "SPINAL CONCUSSION: *Surgically Considered as a Cause of Spinal Injury, and Neurologically Restricted to a Certain Symptom Group, for which is Suggested the Designation* ERICHSON'S DISEASE, *as one form of the Traumatic Neuroses.*"

Erichson, of London, used to suffer abuse, both in his own country and on our side of the Atlantic, for suggesting the possibility of any one being hurt in railway accidents when there were well paid railway claim agents, attorneys and surgeons, who were willing to swear that every injury was too trivial to mention, or show the receipt for fifteen or twenty dollars which some dying man had eagerly signed in recognition of his having assumed all responsibility for the disaster, so far as he was concerned.

Of course there are malingerers who have not been hurt, and who attempt impositions; but in the railway interests it would be more sensible to attack the fraud with the recognized truth that there is such a disorder as Erichson's disease, with certain definite symptomatology. and then prove that his complaints are inconsistent or assumed. But it is too often supposed that "fighting the devil with fire" is the surer way to win, and when the fog between spinal concussion as a cause and as an effect is lifted by speaking of the latter as Erichson's disease, forthwith the battle is waged against that ailment as too subjective to be believed. Pain in the back, tenderness of the spine, sleeplessness, headaches, anæthesia, motor enfeeblement, tremors, inco-ordination, convulsions, depression, eye and ear disorders, vertigo, are some of the symptoms, and many of them can be claimed to exist when they do not; but it is the physician's problem to discover the probability of their reality, or whether claimant is shamming, and if it not possible for the examiner to determine he should confess his inability to do so.

Were typhoid fever to become the basis of damage suits, say against aldermen, for having allowed the city water supply to become polluted, there would arise a flock of experts who would swear away the possibility of typhoid fever ever having existed, and they would claim that what hitherto had been known by that name was really something else, due to alcoholism, syphilis, and indiscretions generally. The typhoid bacillus would be derided, and it could be easily shown that many bacilli had been discredited as causing disease; and the poor old fogy who defended the traditional typhoid would doubt his ability, on escaping from the witness stand, to diagnose tonsillitis from hæmorrhoids. But to come back to the title of this paper: "Spinal Concussion" as an effect, was a misleading misnomer, and the substitution of Erichson's disease concentrated the fight where there was merely skirmishing previously.

One of these days there will appear a volume containing reports of several hundred veritable cases of Erichson's disease, afforded by physicians whose credibility cannot be made sport of by railway surgeons who are well paid to indulge such humor. And in all these cases there will appear no possible motive for shamming, for the victims will make no person or corporation responsible for their sufferings. Then there will fall a great hush in the corporate heavens, and it will come to pass that

scientific discussions of what constitutes Erichson's disease will take the place of the facile contempt of ignorance and hard swearers.

Had spinal concussion as an effect been earlier given anything but an attempt at a descriptive name, which included too much, we would have had twenty years scientific advance in the recognition of the ailment unobscured by there being millions of dollars in fees expended to disprove it, and as much more dangled before the eyes of schemers and pretenders as possible rewards for simulation, while in the confusion the real sufferers are put to endless trouble if they do not lose their damage suits through chicanery of one side and ignorance of the other.

"Softening of the brain" is another misnomer of the most misleading kind. It has been used in a metaphorical sense for a century, and is to the ignorant satisfactorily descriptive of what to the pathologist is complex and oftener involves sclerosis, atrophy, or putting it popularly, "hardening of the brain."

While pathologist of the county asylum the certificates I filed from thousands of Chicago practitioners included in "softening of the brain" at least fifty dissimilar insanities, such as melancholia, paranoia, hebephrenia, paretic dementia, mania, katatonia, circular insanity, confusional insanity stuporous insanity, and even terminal dementia.

Every physician should remember that from the standpoint of the alienist there is no such thing as "softening of the brain." When softening of the brain occurs it is secondary to hæmorrhage, tumor, or other compression, or thromboses which often induce paralytic states, and the softening is not related to the insanity in the remotest degree.

Hastily running over a few of the forms of mental derangement and appending their more probable causes (no attempt being made at completeness), we have mania and melancholia, in which chemical changes in the blood and other fluids, such as an auto-intoxication, are the most frequent and probable causes; then there is the insanity of puberty, due to arrested development of the brain, senile dementia, caused by involutionary changes, sclerosis rather than softening; paretic dementia, a vaso-motor disorder; puerperal insanity, in which hereditary taint is the real or predisposing and child birth is the exciting cause; and so on with all the rest. There is no insanity from softening of the brain.

Early in this century a scientific nomenclature was used in European asylums to the exclusion of expressions in common use, notwithstanding the fact that to within recent years the German alienist catered to the vernacular to the extent of using *Gehirnerweichung der Irren*, for which paretic dementia was the exact equivalent, and the name did not embrace any thing else, though "*Grossenwahnsin*" did erroneously include both paranoia (formerly monomania) and paretic dementia, or grandiose insanities generally. The French rather uniformly restricted "*ramollissement*" to the pathological condition.

In 1866 Reynolds and Bastian published in "Reynolds' System of Medicine," Vol. 1, p. 856, a dissertation upon 'Softening of the Brain," which embodies the misinformation of thirty years ago. Edes in "Pepper's System of Medicine," Vol. 5, p. 989, speaks of the indiscriminate and confusing use of the term, and finally the recent text-books of all kinds, where the authors are sufficiently up to date avoid the use of the word altogether.

Designating many insanities as softening of the brain gives the erroneous impression of incurability, and it is dawning upon the general practitioner that properly cared for insanity is not so hopeless in many of its forms. Had Calmiel attached the name of the discoverer of paretic dementia to that insanity first described by Bayle in 1822-26 an immense amount of confusion would have been avoided by the designation. Bayle's disease, which has been known as general paralysis, progressive paresis and a host of other objectionable titles, and the opportunity to befog juries in criminal cases would have been lost in many instances. For example paretic dementia was mentioned as "general paralysis," (of the insane, being understood,) whereupon the applause of the court room mob in the Guiteau trial was aroused when some political doctor denied that there was such a thing as "general paralysis" except in death. The lynching spirit secured a laugh against the better informed and conscientious alienist who used the unfortunate expression "general paralysis," simply because it was a synonym for the disorder that Bayle described: paretic dementia, a terrible enough variety to those familiar with its ravages. General paralysis was a ridiculous term and has been, since that trial, very properly dropped. It was an attempt at descriptive naming because paralytic phenomena gradually and often progressively appear therein, until it seems as though every part of the body at one time or another can be involved in paralysis of fleeting kinds, until death follows in from two to four years. Had Bayle's disease been used instead, the discoverer would have been honored and all would be compelled to learn what it was that Bayle described, just as in the case of Bright's disease, Addison's or Graves' disease.

There is extant occasionally a tirade against attaching the discoverer's name to any disease, but we should consider that attempting to describe a disorder in a descriptive name is attended with frequently disastrous consequences by affording the ignorant an idea that they know the entire medical significance of the designation.

Huxley called attention to a similar disadvantage in zoology and botany. For instance, plants named "montana" were later found oftener in plains, animals called "fluviatile" were in lakes as well as rivers. So the pituitary gland was ascertained to be neither pituitary nor a gland, the arteries are so-called because supposed to contain air, and the sacrum is not now considered a very holy bone.

"Congestion of the brain" is another unfortunate expression that has absolutely retarded knowledge through its use. The disgusting frequency of the misinformed in ascribing every cerebral trouble with a tinge of hyperæmia to "congestion of the brain," has resulted in the avoidance of the term, and as it is the name of a veritable and special disorder I have noted with astonishment that many of our best works on nervous disorders ignore the derangement altogether, probably because, as Gowers (Diseases of the Brain, p. 196) says: "Congestion of the brain, like 'congestion of the liver,' is a ready diagnostic refuge, seductive in its simplicity, and pleasing in its preciseness; easily affirmed, and not easily disproved."

"But the state," Gowers says, "probably does occur and does cause symptoms," and on page 230 he gives a not very complete description of what I have twice observed in patients in twenty years. The trouble may be rare, but it exists, and Niemeyer, whose work was the careful record of a life, gave under the heading "Hyperæmia of the Brain;" (Text-Book of Practical Medicine, Vol. 11, pp. 158, 167) in 1858, what is even now unequaled as a description of cerebral congestive attacks.

Hyperæmia or congestion is so misleading that it has blotted out from our literature mention of a severe malady, that does not occur often, but is nevertheless entitled to recognition, because it does occur; and the good clinician and diagnostician who has once seen a case will never forget it, very much in that respect as the impression uremic convulsions will make upon the physician who at first suspected hysteria to be the trouble, and sees a case of eclampsia for the first time in his life.

There are direct advantages from avoiding descriptions in naming, for example, electricians secure precision in the use of their farads, watts, amperes, ohms, as measurements, and in the names of their currents the faradic, galvanic and franklinic, after Faraday, Watts, Ampere, Ohm, Galvani and Franklin. Imagine the confusion that attempts to name such matters descriptively would have engendered during our wide spread use of such terms of the present day. Every coal shoveler for a dynamo, every line repairer and telegraph post hole digger would have thought he understood the entire range of electrical science had the benighted ages of the infancy of electricity conferred describing names as supposed to be understood in those periods. Six centuries before Christ, Thales found that rubbing amber on silk caused electricity, and the Greek derivative of electricity announces that fact. If the friction of amber were known generally to be the origin of the discovery that name would have blundered down the ages and explained to all that amber was the source of all electricity. Fortunately the Greek name was not understood by the multitude.

Arraigning these few medical misnomers, from the multitude, we find misconceptions ignorantly, and too often purposely, fostered, sometimes defeating justice and enabling tricksters to confuse the physician who has

not happened to disentangle medical etymology in some instances; and in the case of 'cerebral congestion," actually causing a veritable and severe, though infrequently occurring, ailment to be discredited, owing to a general and a special condition having been covered by the same name, as in the case of "concussion of the spine."

The Relative Importance of the Lungs and Heart in the Treatment of Acute Pnemonia.

By Thomhs J. Mays, A. M., M. D., Professor of Diseases of the Chest in the Philadelphia Polyclinic, and visiting physician to Rush Hospital for Consumption in Philadelphia.

Much is and has been said and written concerning the important part which is played by the heart in the process of pneumonia. Indeed so much emphasis is laid on this one feature in this disease that the inquiring physician is frequently puzzled to know whether or not the heart should receive more attention in its management than the lungs. I believe that this position is charged with danger to both patient and physician, and this paper is an effort to show its fallacy, and to point out the true pathological and therapeutic relations which these organs main tain to each other in this disease.

I do not see any better way of showing this than by briefly tracing the various morbid steps in pneumonia in so far as they are concerned in this special relation. Among the earliest evidences of the existence of pneumonia is a congestion and solidification of the involved area—a dilatation of the pulmonary bloodvessels and a partial or complete cessation of the blood-flow within them. The implicated area gradually becomes larger until a whole lobe or a number of them are involved. Naturally the damming up of blood in the lung interferes with the pulmonary circulation and throws an extra strain on the heart. Those who lay so much stress on the importance of keeping up the motion and integrity of the heart, believe that death is caused by strangulation of this organ; or in other words that the heart collapses and comes to a stand-still in the struggle of pumping the blood fron the right ventricles through the lungs.

On the surface this view appears very plausible, but if we look deeper we shall find other conditions antecedent to the above which have an equal share in the production of acute pneumonia. One of the most important of these is the nervous system, and he who fails to give due consideration to this element fails to grasp the completeness of this subject. The lungs and the heart are innervated by the pneumogastric and sympathetic—but principally by the former which is the largest and most essential nerve in the body, and it would be very strange if these structures were not implicated in the evolution of pneumonia. That the

relationship between the nervous system and disease of the lungs is very intimate is shown by the fact that injury or disease of the nervous system involving the respiratory center or its neighborhood is almost invariably followed by some form of pulmonary disorder.

Thus it has been abundantly proven that mutilation or division of the pneumogastric nerves produces disintegration of the pulmonary organs. Professor Schiff long ago developed hepatization in the lungs of rabbits by dividing these nerves. Michaelson concludes from his researches that double vagotomy in animals is followed by œdema, hyperaemia, spleenization, and hemorrhage of the lungs. In a recent investigation of this subject I found a large number of cases recorded in medical literature in which oedema, congestion and solidification of the lungs took place in the human subject in consequence of division, disease, or compression of the vagi. The clinical association between *epilepsy* and lung disease is quite common. Epileptics are excessively prone to die of pulmonary disease. This is undoubtedly due to the close anatomical affiliation of the epileptic or convulsive center with the respiratory center. Lemaire reports a case (Clbt. f. d. nervenheilkunde, vol. II, 1888, p. 680) in which two attacks of pneumonia were preceded each time in the same individual the first at the age of 32, and the second at 40, by genuine epileptic seizures, and this in a person who had not been subject before or afterwards to the latter disease. *Influenza* is a special infectious disease with a marked affinity for the nervous system and, according to Graves for the pneumogastric nerves. Bearing this relationship in mind we have an explanation why pulmonary disease and especially pneumonia, is such a frequent accompaniment of this disease. *Cerebro-Spinal Meningitis*, another infectious disease, is, as its name implies, an affection of the brain, the medulla oblongata, and the upper portion of the cord. Pneumonia, as is well known, is a common complication of this disease. In fact when the latter is epidemic it is often difficult to discriminate between it and pneumonia, for pneumonia is often ushered in by intense nervousness, active delirium, local muscular spasm and general convulsions. Jeurgensen writes (*Ziemssen's Cyclopœdia*, vol. 5, p. 115) that Immerman and Heller recently called attention to this point. Out of thirty autopsies in cases of pneumonia they found nine in which meningitis was present. It was ascertained that an epidemic of cerebro-spinal meningitis prevailed at the same time (cited from *Medical and Surgical History of the Rebellion*, Part III, Medical volume, p. 608) Pneumonia is also prevalent among *paralytics*. Dr. Bianchi states (*Neurolog. Centralblatt*, 1884, p. 452) that in a number of paralytics, whose death was caused by pneumonia, he was able to trace a primary degenerative atrophy of the pneumogastric nerves, and concludes that the pneumonia is dependent on a degeneration of the latter. Dr. J. Chrichton—Browne (Brain, vol. 6, 1883, p. 317) examined the bodies of one hundred *general*

paralytics, and found the lungs and pleura involved in the following proportion: congestion, which in many instances was difficult to distinguish from consolidation in 49, phthisis in 25, pneumonia in 13, pleurisy in 64 cases.

The doctrine that disorder of the nervous system has the power of originating pneumonia is not new. A few years ago Dr. Hughlings-Jackson, in discussing a paper on *Pulmonary-Paresis*, read by Dr. B. W. Richardson before the London Medical Society, said that he regarded acute pneumonia as a form of herpes zoster of the pneumogastric nerves (*Proceedings London Medical Society*, vol. XI p. 95) Dr. Fernet, in a paper on *neuritis of the pneumogastric nerves as a cause of acute pneumonia*, (Praktische Heilkunde, 1879, I, 18) expresses the conviction that the so-called fibrinous pneumonia is a herpes of the lungs brought about by disease of the pneumogastric nerves. Professor Baelz, of the Tokio University in Japan has been teaching the doctrine for a number of years that acute pneumonia is a reflex vaso-motor exudation neurosis, (Centralblatt f. Klin. Med. 1888, p. 883.) From this it appears that the view of the probable origin of pneumonia through the instrumentality of the nervous system is held by some of the foremost thinkers in the medical profession.

According to this and other evidence that could be adduced it is quite probable that pneumonia is always dependent on an impaired nerve supply of the lungs, and bearing this in mind it becomes entirely pertinent to make an inquiry as to the mode of or the tendency to death which the neurotic condition exerts in pneumonia. Is the greater danger of dying lurking in the lungs or in the heart? It must be understood of course that the pulmonary and cardiac nerves have very largely a similar origin, and that whatever deranges the former will naturally have a pernicious influence on the latter. That in very many cases of pneumonia the heart is enlarged as is shown by an increase of its area of percussion-dulness, is quite clear enough; yet this distension may not be solely dependent on a weakened heart muscle, but may in large part be due to a nerve power which is insufficient to maintain the integrity of the heart's contractility. This is, indeed, the only original defect in the heart to which the logic of the above evidence points. "Giovanni has found increase of the cardiac area in the whole of thirty cases examined. It generally effects the right side, but sometimes the whole heart. It is not always proportionate to the embarrassment of the respiration but it is then an unfavorable sign. Giovanni thinks that it is in part under the influence of the nervous system." (Dr. Wilson Fox, *Treatise on Disease of the Lungs and Pleura*, p. 303 and 304).

That the heart dilates under the influence of a relaxed or sluggish nervous system is sometimes seen in anaemia, especially in that of growing girls. Here on account of a want of sufficient nerve tone the left ventricle dilates to such a degree that the mitral valves fail to adjust

themselves, and a functional mitral regurgitation supervenes. The administration of digitalis, strychnine or caffeine will correct this defective contractility, shrink up the heart and relieve the valvular affection. The same holds true of typhoid fever. In this disease one frequently comes across a fugitive mitral insufficiency which is due to the same want of tone in the nerve supply of the heart-muscle.

Now in pneumonia there is a similar weakness in the heart-muscle which is followed by dilatation and especially by dilatation of the right ventricle on account of this part of the heart being more directly related than any other to the obstruction which exists in the pulmonary circulation. But is this any good reason for believing that you can overcome the obstruction in the lungs and disperse the same by stimulating and whipping up the heart? Is it right that the heart should be required to do work which it is perfectly incapable of performing?

If the heart forces more blood into the lung behind an area of consolidation where the blood flow is almost completely checked, would not such an operation rather embarrass than relieve the already overloaded circulation? One thing seems quite certain, if large doses of digitalis do as much good as they are credited with in pneumonia, they exert a beneficial influence on the local process in the lungs directly, over and above that which they have on the heart.

But the most pernicious effect of the idea of treating pneumonia by way of the heart is in attracting the attention of the practitioner away from the lungs—the part of the body in which the greatest mischief and danger are located—and in encouraging him to believe that medication is powerless to modify the local process in the latter organs. I think this coupled with the other baleful doctrine that acute pneumonia, like scarlatina, and small pox, is a selflimited disease, have done more harm to the therapeutics of pneumonia than was ever accomplished by the vilest fanaticism of venesection. Besides its detrimental influence on the treatment, this doctrine leads one to overlook the important indications which are furnished by the lungs toward the formation of a correct prognosis. I do not mean to under-rate the value of the heart in this respect, for I know it needs constant watching, but I do not believe that the most serious threatenings come from the heart in pneumonia. In fact I believe that the heart is less vulnerable than we suppose it to be, and that it will react under apparently hopeless conditions. Its power in this affection frequently flags to such a degree that the patient's extremeties become pulseless, and its impulse becomes so weak, and at times so irregular that the possibility of recovery seems almost out of the question. Yet we know that such a heart recovers itself, and resumes its former strength. But when you have a patent lying before you whose lungs seems to be comparatively immobile, not so much on account of extensive infiltration as of exhaustion, whose breathing is rather frequent

and laborious, and whose every breath is accompanied by a moan, and seems as if it were the last the patient could draw, and especially when there is a feeling of anguish and pain in the gastric region—the sign of an overworked diaphragm, or when the respiration becomes jerky or intermittent, then you see a picture of dispair with scarcely any foreboding of good for the sufferer.

It is evident from these indications that the most rational therapeusis of pneumonia is one that has for its principal object the reduction of the local trouble in the lungs. A measure that accomplishes this end will not only abate the pulmonary exudation or infiltration but will bring relief to the encumbered and embarrassed heart. Such a measure I believe we possess in ice-cold application over the affected area. On the evening of the ninth of last October I read a paper before the Philadelphia County Medical Society in which is given a collective record of one hundred and ninety-five cases of pneumonia which were treated in this way, and among which there were only seven deaths, or a mortality of 3.58 per cent. The efficaciousness of this treatment is not alone shown in the low mortality which it gives, but in the fact that as a rule it forces the crisis to appear earlier than it occurs in cases treated by other means, and frequently has an abortive effect on the disease. Moreover it reduces the fever, tones up the heart and pulse, alleviates the painful breathing, promotes the pulmonary circulation, resolves exudation and infiltration, and when combined with large doses of strychnine to support the respiratory and cardiac movements, morphine and atropine to secure rest and sleep, oxygen inhalations to relieve dyspnoea, strapping of the chest in associated pleurisy, freshly expressed beef juice, beef and cocoa powder, milk, brandy and other nourishing food to maintain the general strength, it forms the strongest lever that we have, so far as I know, for the purpose of combatting this disease.

Some of the Splendid Results Obtained by the Whitehead Operation.

By Dr. A. Rhu, Marion, Ohio.

During the month of August last I read a very enjoyable article by a Chicago surgeon on the disastrous results following the Whitehead operation for piles, and the so-called American operation. The doctor reviews the Whitehead from start to finish, with a vigorous and highly prejudiced mind. This good doctor is so hide bound to authority, and precedence to codes and customes, that he did not permit himself to consider it for a moment. Yet, in all fairness he says, a few leading surgeons, such as Gerster, Myeth, Roswell Park, Marcey and McBurney, are really favoring the Whitehead and are performing the same when indicated, with splendid results, and at the recent Mississippi Valley Medical Association meeting

at Detroit, Michigan, Dr. Marcy, of Boston, read a very fine paper endorsing the Whitehead.

The stock of objections of our pessimistic surgeon are as follows:

1. Loss of special sense, warning the patient of fæces and an approaching evacuation.

2. Impairment of the *whole tactile* mechanism of the rectum.

3. Ruining of the tactile and reflex action of the sphincters, or paralysis of the sphincters.

4. Failure to obtain primary union.

5. Cicatricial formation and contraction of anus, producing stricture.

6. And lastly, doubting if the rectum can be rendered aseptic, for he eloquently says: A thousand years of douching and scrubbing would scarcely accomplish complete disinfection, hence all incisions in it are made through infected territory.

7. The great frequency of flatus, mucous and fæces.

And in closing his article the doctor hotly claims that the Whitehead operation, and its offspring, the American operation of the original, *quack*, have proved far too disastrous to be worthy of the confidence of surgeons.

Well, I have no doubt, the great doctor must have been filled with the thought that, now the Whitehead operation is forever consigned to oblivion, never more to be countenanced. In fact, it reminds one of a Spanish inquisitorial dictation, that surgeons had better desist in thinking in a freeminded, progressive, and honest manner, accept nothing new, and never again pass beyond the standard text-books on surgery and surgical procedures.

Gentleman doctors, speaking for myself, I would say, I will accept truth from any and all sources, and that I believe most, if not all, surgical procedures can be improved upon, regardless of authority, precedence, codes or men. The Whitehead, I know, offers a permanent cure, as a rule, more certain than any other surgical operation ever devised in the history of surgery or medicine, In the many cases where I have performed the Whitehead operation for piles and other rectal pathology, I have never had any bad results. Such results as the doctor describes, might, I have no doubt, frequently happen in the hands of the inexperienced surgeon, or rather the psuedo-surgeons, which are manufactured in the Chicago Pratt Clinic, where the veriest tyro in medicine and surgery, witnesses the consumate skill and technique of the bold Pratt, and on return ing home feel free to operate. It is true many do so with success, but I am of the opinion that the great majority of Pratt's pupils are unsurgical in their work, and many in consequence very unsuccessful.

The surgery of the rectum has undergone many very marked and happy changes during recent years. The technique cannot here be described. A mere reading knowledge teaches no one anything in surgical work. All surgical procedures must be witnessed as performed by master

hands; then only will your reading knowledge and theory become of value.

The doctor has expressed himself that the rectum cannot be rendered aseptic. Well, in that too, I differ with him, for I can render the rectum perfectly aseptic, and in every case obtain primary union. Many doctors are still of the opinion that there is something mysterious in rectal surgery. Why! the same rules of surgery hold good in rectal surgery as in any other surgical procedure.

We have, unfortunately, still a few surgeons who ligate piles, or internal hemorrhoides; a few still who use the clamp and cautery. Some such as the clamp, and occasionally the cautery, might be indicated, but ligation *never*. What is more unsurgical than the horrible method of ligation. It is simply the most unsurgical procedure ever devised. It is now a little more than a decade since I became familiar with the Whitehead operation, and ever since it has been growing in favor with me; my patients are delighted; the results have been most admirable in every case. In this, I assure you, I stand not alone. In the last May Lancet I read, with great pleasure and profit, a paper by Bernard Pitts, F. R. C. S., Eng., Surgeon and Lecturer at St. Thomas' Hospital, and numerous other hospitals, wherein he endorses the Whitehead operation, and records only success; has no paralysis of sphincter, nor impairment of the whole, or in part, of the tactile mechanism of the rectum, nor failure to obtain primary union; does not characterize the operation as a severe or bloody one. and further says:

"I have adopted Whitehead's method now in about 30 cases, and am quite convinced that when there is a complete ring of hemorrhoidal tissue, attended with prolapse to deal with, it is the most satisfactory operation to perform—failure to get a good result depends either upon the selection of an unsuitable case or upon a careless and imperfectly performed operation."

Personally I feel that if the doctors would only witness the splendid results as obtained in the hands of good operators, they would cease to condemn an operation so beneficial to suffering humanity. The operation is also a comparatively bloodless one; it is one of the rare things to have to resort to ligation of vessels, and never have I had after hemorrhage. As a rule I suture with No. 2 or 4 catgut, which need no after care. On the 10th to 12th day my patients are well, up, walking about; bowels move within the first 24 hours, and are kept moving. To use any anodyne after an operation is indeed a rare thing. As yet I've always been able to get primary union. My patients remark that they are surprised at the small amount of after pain and from the start painless evacution of the bowels, and full control over the sphincters.

One case of the many operated on by myself, just comes to my mind, and is quite *apropo*. A young man, aged 32, chronic sufferer from bleed-

ing internal hemorrhoids, and general debility, was given up to die from so-called consumption. The Whitehead operation was carefully performed, his bowels moved the first 24 hours, had the minimum amount of pain, and on the fourth day got up and went to the supper table; in two weeks more returned to work. Two months afterwards he came to my office, and remarked: I would not accept $1,000 and return to my former state where I was before being operated on. Gentlemen, this is the testimony of all my patients on whom rectal operations were performed.

In the face of such splendid results, I can certainly not return to the ligature, clamp and cautery, or the abominable injection method. Quite recently a case came to my private hospital, where the patient had submitted to the Brinkerhoff injection method. It was certainly the most pitiable patient that ever came to me for relief. Large hypertrophies, the size of a thumb, two in number, on each side of the rectum, fissues caused from the destruction of the carbolic acid injected, the external sphincter relaxed, injured, bruised, lacerated, and hypertrophic tabes of tissure surrounding the entire anal region; a weak, trembling anæmic patient, racked by the pain caused by evacuation of the bowel, frequent formation of phlegmonous and cellulitic inflammation had so reduced this patient that he was unfitted for any work whatsoever; a discouraged, weak, physical wreck; his lustreless eyes, pallid face, expressionless countenance, told the story of a wretched and painful existence. What can you offer such a patient? Nothing but the Whitehead can step in here and effect a cure, which, I am happy to say to you, is already an accomplished fact. This particular patient is well and able to work regularly on the bench as an expert mechanic, enjoying the full measure of robust health. Only three weeks were needed to accomplish a permanent cure. I will not here attempt a description of the techniqne of the operation nor its after treatment, for as said before, no description, however beautifully illustrated, will convey more than the merest elementary outlines.

I earnestly entreat you to examine further this excellent surgical operation, and when indicated you will invariably meet with success. Make it a point to witness the operation, watch its result, and you will hail it as a welcome friend, one that does not alleviate and palliate, but an operation that invariably cures as a rule.

123 South Prospect Street.

Tuberculosis of the Female Genital Organs.

By William Moser, M. D., Pathologist to St. Catherines Hospital, Brooklyn.

Tuberculosis of the female genital organs is not common. While it may occur as a primary affection, it is usually associated with pulmonary or general tuberculosis. "Il est incontestable que, daus la grande majorite

des cas, la tuberculose de l'uterus coincide avec la tuberculose du poumon" (Lutand).

"The tubes are always involved in tuberculosis of the genitals, and in about one-half of all cases they alone are affected" (Winckel).

It may be acute (Rokitansky) but is generally chronic. When tuberculosis affects the tube, it becomes very much thickened, dilated and undergoes caseous degeneration. This cheesy tuberculous mass may fill the lumen of the tube. The granulation tissue beneath it, extends into the muscularis.

In some cases we find only slight thickening of tubes, while miliary tubercle which may escape detection can be seen here and there on the mucosa. I have seen miliary tubercle on the serosa. The tubes may be convoluted and contain diverticuli. The blood vessels become thickened. Adhesions form here as in other inflammations, binding the tubes to adjacent structures.

Next in frequency to tuberculosis of the tubes is tuberculosis of the uterus, and lastly tuberculosis of the ovaries. I have never seen an instance of the latter affection. Hennig found it in the ovaries 6 times (quoted by Winckel, p. 507). Geil found it, in the ovaries, 0 times; right tube 44; left tube 42; uterus 35; vagina, once. I found tuberculosis of the uterus 7 times. In six of the cases the endometrium was studded with miliary tubercle. There were no caseous nodules. In the seventh case the whole endometrium was converted into one white, thick, caseous, broken-down mass.

It must be admitted, from a review of the literature, that such an extensive caseous degeneration is very rare. These disintegrated caseous masses may at times be expelled from the uterus and be examined for tubercle bacilli, in this way being an aid to diagnosis. In the same way sections of the tubes ought to be made after extirpation by operation for the demonstration of tubercle bacilli. Tuberculin may be of some service in the diagnosis of tuberculosis of the tubes, as the condition in question reacts at times through injections of this substance by producing hemorrhage, while ordinarily in women it will usually produce only a rise in temperature.

Further investigations, regarding this point, are desirable. "Investigation has shown that transmission in sexual intercourse is possible even in the absence of genital tuberculosis" (Dobroklouski, quoted in Medical Record, p. 104). If the genital organs in women, and especially those who die from pulmonary tuberculosis, were examined at every autopsy, which of course they are not, we might find sexual tuberculosis not so infrequent as we are led to believe from statistics.

158 Ross Street.

The ivy-bush was chosen as a sign before a tavern in old times because it was a plant sacred to Bacchus.

A Brief Resume of the Treatment of Appendicitis.[1]

By H. A. Royster, A. B., M. D., Raleigh, N, C.

This short paper is presented with the hope that it may add something to the discussion of the very important subject which is before you this evening.

In confining my remarks to the treatment of appendictis, there is no intention of belittling the questions of its etiology, pathology and diagnosis, for these are of the greatest interest. But they have already been touched upon here and are certainly more or less familiar to you all. As far as possible, within these limits and with the material at my command,[2] I have endeavored to sketch the consensus of modern medical opinion in regard to the treatment of appendicitis.

Appendicitis, as a distinct disease, is esentially modern. James Copland, in 1834, in his Dictionary of Practical Medicine, first discriminated between inflammations of the caecum, the vermiform appendix and the pericaecal tissues (Fitz). Geo. B. Wood, in his Practice of Medicine (1858), under the head of "Typhlitis," refers to the "appendicula vermiformis" as "in some instances the seat o inflammation." In the year 1867, Professor Willard Parker, an American Surgeon, advocated cutting down on the tumor resulting from inflammation in the right iliac region, as soon as fluctuation could be detected, and in three out of four cases success attended his efforts. His investigations led to a great reduction in the mortality of these cases, since up to that time they had been treated wholly on the expectant plan. Kronlein in 1884 removed a perforated appendix for the first time in the history of surgery. Even at that date the relations of the various inflammatory affections in the right iliac fossa (typhlitis, perityphlitis, paratyphlitis. etc.,) remained in confusion and obscurity and, therefore, their treatment highly unsatisfactory, until Reginald H. Fitz.[3] of Boston, in 1886 published his elaborate paper, in which he directed attention to the appendix as the primary seat of inflammation and coined the term "appendicitis." The exact pathological lesion having been thus definitely located, the management of these conditions was placed upon a rational basis. No material changes in our ideas on the subject have taken place during these nine years, except as brought about by recent advances in pathology and in surgical technique. It is now generally believed that, of all acute inflammatory affections in the right iliac fossa, in 99 per cent. the vermiform appendix is the primary source of the trouble.

Since the publication of Fitz's article, the treatment of appendicitis

1. Read before the Raleigh Academy of Medicine, Dec., 4, 1895.

2. I have freely consulted and quoted the several editions of the Annual of the Universal Medical Sciences (Sajous) and the orginal articles, as referred to.

3. American Journal Med. Science, Oct., 1886.

has engaged the most careful attention of the profession and it is interesting to note the evolution of ideas on the subject. At first, in view of the apparently brilliant results attained, indiscriminate operating was the order of the day. This was particularly the case in our own country. But it must not be forgotten that the credit of recognizing the specific nature of appendicitis and perfecting its treatment belongs to American medical men. In 1890 and 1891 vigorous protests against this operating epidemic came up from both physicians and surgeons, here and elsewhere who, though by no means possessing reputations for conservatism, yet were unwilling to see a valuable measure brought into discredit by its abuse in unselected cases. Notable among the protestants was Frederick Treves, of London. Later in that year (1891), however, and in the year following, with larger experience better judgment was displayed in the handling of all the cases and the opinions then formulated have remained practically the same up to the present time. The great question has been and is now, that of the appropriate time for surgical interference. To study this question exhaustively would involve points in the diagnosis entirely beyond the province of this paper. For present purposes, an outline will be given of the more recent ideas concerning (a) the medical and (b) the surgical treatment of appendicitis.

There is very little to be said about the medical treatment, for the diagnosis being assured, it is considered the physician's duty to watch his patient and to entertain the question of timely operative interference. Keen believes that the "first duty in a case of appendicitis is to call a surgeon" and Wyeth urges us to regard the disease as "strictly a surgical lesion" But even the most rabid enthusiasts and those who have most confidence in their ability to perform the operation would counsel delay in the beginning of an ordinary case, for "the number of mild cases is undoubtedly large." Even so eminent an operator as McBurney, in one year, saw 13 cases too mild for operation. The usual expectant plan of treatment, which is followed at the present day, consists in absolute rest in bed; a liquid diet; opium, only when necesssary to relieve pain; the administration of enemata, if it is deemed proper to secure evacuations of the bowels; and the external application of cold over the region of the appendix.

The wholesale use of opium, which seemed so important in this affection some years ago, is now condemned by all writers on the subject. Fitz mentions the case (reported by Clark in 1861) of a boy, 18 years old, who took 1350 drops of laudanum in one day! As to the employment of purgatives the profession is divided, but the weight of authority seems to be against their use as a routine measure. Many physicians administer salines freely in the beginning of an attack and claim good results from their derivative action and in the removal of fœcal accumulations so often present in the cæcum, while others charge this treatment with producing

a greater risk of general peritonitis. All are agreed that cathartics are contra-indicated during the later stages, when danger of perforation exists. References are occasionally seen to the use of calomel. A case which has just passed under my observation, ending in recovery by expectant treatment, illustrated nicely the efficiency of this drug. There were the usual symptoms of the disease, including nausea, vomiting and constipation, with dullness over the line of the cæcum, the ascending colon and half of the transverse colon. After the exhibition of one-quarter grain doses of calomel, the stomach became quieted and the area of dullness above mentioned had disappeared, though there had been no movement of the bowels. This was brought about later by a rectal injection of warm water. Probably any other peristalsis-increaser would have effected the same result as the mercurial. On the whole, however, the enema is the safest means by which to unload the bowels. Its superiority over all other methods of attaining this end was abundantly proved to my mind in the management of the non-operative cases occurring during my hospital experience. Instead of cold applications to the abdomen, many practitioners use hot poultices or cloths wrung out in hot water, looking more to the comfort of the patient than to a possible arrest of the inflammatory process.

I have purposely dwelt somewhat at length upon the medical side of this question, because it is of decidedly more importance to us as general practitioners, being called upon, as we are, to approach these cases from the standpoint both of physician and of surgeon. The manner in which we conduct the expectant treatment will make its influence felt in case the operation is needed subsequently. It is unquestionably true that the majority of cases of appendicitis recover under such a course of treatment as given above. It is also undeniable that most cases are mild from beginning to end, and would terminate favorably without any treatment beyond rest and fluid diet. According to the editor of the *Philadelphia Polyclinic* not more than one in five cases should be subjected to operative interference. Fitz gave a mortality of 25 per cent. under the expectant treatment, and yet up to that time McBurney had reported 24 operative cases with only one death, or a mortality of about 4 per cent.

With improved methods in surgery there is at the present day a very low death-rate from operative treatment, especially as applied to the removal of the appendix in the interval between attacks. In such cases W. T. Bull, in 1894, placed the average general mortality, in the hands of all surgeons at 5 or 6 per cent., as a fair estimate, though he had collected then a series of 450 operations with only 8 deaths, or a mortality of a little more than 1 per cent. Wyeth puts the death-rate of appendicitis at 18 per cent., as drawn from 364 cases reported by the leading surgeons. It behooves us, therefore, as practitioners of medicine, to give this subject our most earnest attention, and to study diligently every case under our care as to the advisability of surgical interference.

Without going into details, it may be said in general that the surgical treatment of appendicitis comprises the opening of the abdomen, under aseptic precautions, and removal of the appendix, unless, in the event of pus formation, it would unnecessarily prolong and endanger the operation to hunt for it. In that case it would be proper simply to evacuate the abscess and drain. In regard to operative methods there seem to be as many different opinions as there are operators. Most surgeons prefer to make the abdominal incision in the right semilunar line, and recommend that it be as small as possile. Gerster employed a median incision below the umbilicus. Recently, Dr. McBurney has advocated an oblique incision crossing a line from the anterior superior spinous process to the umbilicus, almost at a right angle, going through the external oblique muscle and its aponeurosis in the same direction, then, after retracting these edges, extending the incision in the opposite direction through the internal oblique and the transversalis, no muscular fibres, thus, being cut across. The advantage claimed for this method is the approximation rather than the drawing apart of the edges of the wound, but it takes time and is unsuitable for the suppurative cases, where a larger incision is needed. The usual method of caring for the appendix in these operations has been to strip it of its mesentery, ligate it close to the base, cut off and either to invert the stump, covering it with serosa by means of the Lembert suture or to touch it with pure carbolic or nitric acid, or sear it with the Paquelin cautery, and then leave it free. Of all these variations, invagination of the stump and suturing after Lembert seems to have afforded the best results, but many theoretical and practical objections have, from time to time, been offered to each of them. Inversion of the entire and unopened appendix was first proposed and performed by Ebebohls, of New York. In the hands of other operators it has not been so successful. During this year R. H. M. Dawbarn[1] has set forth a plan of dealing with the appendix, which may be regarded as a combination of the good points of the several procedures now in vogue.

Every case of appendicits is a law unto itself in regard to the question of timely operative interference, and no hard and fast rules can be laid down. The highest authorities differ on many points. All agree that in the presence of pus an operation is imperative. Da Costa[2] has "seen a large number of catarrhal cases cured by medical treatment," but believes that surgical treatment is always needed "when the disease advances to pus formation." He further says that "pus may be recognized not so much by the increased temperature and pulse, as by the entire history of the case, the greater variability of the symptoms, severe and recurrent pains, particularly by the kind of pain (colicky) and by the increased tenderness." "If we err," he says, "let it be on the side of oo

1. Medical Record, August 31, 1895.
2. Medical News, May 26, 1894.

early rather than on that of too long delayed operation." Over against this, let me place the opinion of an abdominal surgeon (Joseph Price) as to when the operation is not needed. He says that recovery without operation is probable (1) "if nausea disappears in 12 hours; (2) if tenderness on pressure is not increased in 12 hours; (3) if the temperature is normal, or not above 100° F., in the mouth; (4) if pulse normal or but little accelerated; (5) if patient moves in bed with ease."

No better general rule could be given, for a working basis, than that formulated by Dr. Keen, who states that by the second, certainly by the third day, and for a greater reason later, the operation should be performed if the following indications are present: "(1) if there is abdominal pain, most marked in the right iliac fossa, and especially with tenderness at McBurney's point, alternating with possible nausea and vomiting; (2) if there is rigidity of the right abdominal wall; (3) if there is fever up to 100°, 101°, or 102° F., which does not yield to medical treatment; (4) if by minute and careful palpation, tumefaction and increased resistance can be discovered, with possible dullness and rarely fluctuation; and (5) if there is œdema of the abdominal wall."

Hunter McGuire* has just reported seventeen operations for recurrent appendicitis with one death. He is "not always in a great hurry to operate," but is "inclined to wait for the more acute symptoms to wear off and operate, if at all, after suppuration has taken place, or during the quiescent stage, between the attacks."

On December 4th, before the College of Physicians of Philadelphia, Dr. John B. Deaver read a paper, containing reports of two hundred operations for appendicitis done by himself with only two deaths, or a mortality of one per cent. He advocates an early operation before the stage of pus formation, and considers it unwise to operate on a patient in collapse, but that if attempted, even then, a thorough operation should be performed, regarding it as incomplete surgery merely to open the abscess and drain. He believes there is no medical treatment that will cure appendicitis.

323 West Morgan Street.

A Tooth Growing in the Nose.

By George W. Graham, M D., Charlotte, N C.

On January 10th, 1894, Mr. —— brought his ten year old daughter to my office and stated that he wished her treated for nasal catarrh, from which she had suffered for more than a year.

The history of the case ran as follows: One night about eighteen months before, while playing in the moon-light with her companions, the child ran against a projecting hinge, from which an old gate had fallen,

*Transactions of the Medical Society of Virginia, September, 1895.

and knocked out one of her front teeth, and otherwise injured her mouth, which bled profusely. A physician was summoned who checked the hemorrhage, and in a few days the wound had healed, minus the tooth, which was never found, although diligent search was made for it the next morning.

An examination of the nose, with head-mirrow and speculum, showed one nostril to be in a normal condition, while the other was filled with a polypoid growth, beneath which their constantly oozed a watery liquid in such quantity as to require frequent use of the handkerchief. After removing the excrescence in the usual way, the tooth, which had so mysteriously disappeared, was discovered firmly embedded in the inferior turbinated bone, where it had taken root and was growing with as much vigor and thrift as when it occupied its proper place in the upper jaw. The girl had struck the hinge with such force as to drive the tooth entirely through the superior maxilla and bury it in the nasal bone, and so thoroughly had it united with the parts that it was impossible to remove it with forceps without doing further injury to the nose. I then sought the assistance of Dr. Charles L. Alexander, D. S., who with an application of cocaine and skillful use of his dental engine, soon severed the tooth from its connections. The recovery was rapid and uneventful.

Animal Therapeutics in the Treatment of Cerebral Hyperæmia.

By William A. Hammond, M. D.,
Surgeon General United States Army; Late Professor of Diseases of the Mind and Nervous System in the College of Physicians and Surgeons, New York; Bellevue Hospital Medical College; The University of the City of New York; The University of Vermont; and the University of Georgetown, Washington, D. C., etc., etc.

It is well known that many of the most powerful medicines of the pharmacopœia are obtained from vegetables. It is also a familiar fact that the mineral kingdom supplies many of the most active remedies of the materia medica.

In the first category we have opium and the various substances, morphia, codeine, narcotine, and a large number of others contained in it; strychnine from nux vomica, atropine from belladonna, aconitine from the *aconitum napellus* (a plant so similar in its general characteristics to our common horse-radish that cases of poisoning from mistaking one for the other are numerous), hyosciamine from henbane, and hundreds of others of greater or less power.

Among the minerals are mercury and its preparations, chief among which are calomel and corrosive sublimate; arsenic, which is used in medicine chiefly as Fowler's solution; iron and its score or more of com

pounds, such as the sulphate, the phosphate, the citrate; bromine and its combinations with sodium, potassium, calcium, and ammonium as bromides; iodine, chiefly used as iodide of potassium; all the alkalies, as soda, potash, lime, ammonia, and magnesia. There is scarcely a single elementary substance in the whole alphabetical range from arsenic to zinc that is not used in medicine.

Now, how is it with the animal kingdom?

During the Middle Ages various parts of the lower animals, and even of man himself, were used as remedies. This, however, was not so much from any reason based on a knowledge of their chemical constitution as from the idea that they were possessed of an occult influence, due to some peculiar circumstances connected with them. Thus the fingers of a man who had been hanged were considered to be of special efficacy in the treatment of certain diseases; the flesh and internal organs of lizards, snakes, cockroaches, and other repulsive animals were thought to be of great value, and so on with even more disgusting agents.

Until recently all these ideas were looked upon by modern physicians as relics of a superstitious and semi-barbarous age, for they saw in the fact of the employment of these substances nothing beyond the horror of the associations connected with them; but recent investigations lead us to a very different conclusion. It is well known that some of the most active poisons known to science are formed during the decomposition of animal bodies. Certain bacteria make their appearance in these organisms and produce compounds called "ptomaines," which cannot be distinguished by the most rigid chemical analysis from certain other substances derived from vegetables.

Thus there is one resembling digitaline, another morphine, another atropine, another aconitine, and so on; and this not only chemically, but also in their effects on the human system. It will be called to mind by our readers that in the case of the late Carlyle Harris it was disputed by the chemical experts who testified at the trial whether or not the reactions obtained by the analysis of his murdered wife's body were due to morphine or to a substance produced during decomposition and acting to tests exactly in the same way as morphine. Selmi, an Italian chemist, has saved several suspected murderers from punishment by proving that the substances found in the bodies of the dead persons were not strychnine or morphine or delphinine, but ptomaines scarcely, if at all, distinguishable from these alkalies. How do we know, therefore, that there is not some remedial power in a hanged man's fingers? Not, of course, because he has died by hanging, but because they are animal substances in a state of incipient putrefaction.

Medical science has not yet, however, taken hold of the ptomaines to any considerable extent, though doubtless the time will come in the near future when these powerful substances will be brought into subjec-

tion and employed with safety and effect in the treatment of disease. Already there are indications of such an advance. The prevention of small pox by vaccine matter; hydrophobia by the diluted virus passed through the bodies of animals and then introduced into the human system; the treatment of tetanus, or lockjaw, by an anti-toxine, of tuberculosis by another, and diphtheria, the cholera, and the plague by others, are all steps toward the systematic use of ptomaines.

But the animal kingdom has not been altogether neglected by modern medicine, for several agents of no small efficacy belonging to this domain are used in the treatment of disease. Thus we have spider's web for malarial fevers, musk for certain spasmodic affections, cantharides (Spanish flies) for making blisters, the potato fly for a like purpose, ox-gall as a purgative, pepsin from the pig's stomach for dyspepsia, and a few others not so frequently employed as those mentioned.

But three or four years ago an impetus was given to animal therapeutics by that eminent physician, the late Dr. Brown-Sequard, which has been so markedly re-enforced through the researches of several observers, myself and others, that practical medicine, and through it humanity, will probably be more greatly benefitted than by any discovery that has been made since the notable one of Jenner, and this latter was a step in the direction of isopathy, to which subject we shall presently more fully advert.

Dr. Brown-Sequard's observations referred to but one organ of the body, and were not made in accordance with a systematic theory such as that under which my researches were conducted. This theory may be expressed in a concrete form by the single word "Isopathy."

Two distinct but analogous doctrines are embraced under this term. One is that diseases may be cured by the products of similar diseases; as, for instance, smatl-pox by the matter of small-pox, and hydrophobia by the peculiar virus of that disease. This theory has recently become thoroughly well established through the researches of Pasteur, Koch, Kitisato, and others. It also embraces a theory that a diseased organ of the body may be cured by the introduction into the system of the corresponding organ of the healthy animal. As showing the rapidity with which science advances in these days and the danger of dogmatic assertions by people who do not know what they are talking about, we may state that the gentleman who defined isopathy for the Century Dictionary —which, we believe, was published only three years ago—rather superfluously adds the statement that "both theories are absurd." Probably he will change his opinion before the next edition of the dictionary is issued.

Relative to the researches I have made on the subject of extracts from animal tissues and the theory upon which I conceive their efficacy rests, I can do no better than submit an extract from the lecture on the

subject as it was delivered before the class of the New York Post graduate Medical School and Hospital January 16, 1893, and subsequently published in the New York Medical Journal January 28, 1893, and in many other medical journals in this country and abroad :

"Organic beings possess the power of assimilating from the nutritious matters they absorb the peculiar pabulum which each organ of the body demands for its development and sustenance. The brain, for instance, selects that part which it requires ; the heart, the material necessary for its growth and preservation, aud so on with the liver, the lungs, the muscles, and the various other organs of the body. No mistake is ever eommitted ; the brain never takes liver nutriment, nor the liver brain nutriment, but each selects that which it requires. There are, however, diseased conditions of the various organs in which this power is lost or impaired, and as a consequence disturbance of function, or even death itself, is the result.

Now, if we can obtain the peculiar matter that an organ of the body requires and inject it directly into the blood, we do away with the performance of many vital processes which are accomplished only by the expenditure of a large amount of vital force.

"Let us suppose a person suffering from an exhausted brain, the result of excessive brain-work. Three hearty meals are eaten every day; but no matter how judiciously the food may be arranged, the condition continues. Now, if we inject into that person's blood a concentrated extract of the brain of a healthy animal we supply at once the pabulum which the organ requires. Then if, under this treatment, the morbid symptoms disappear, we are justified in concluding that we have successfully aided nature in doing that which unassisted she could not accomplish.

"All this is applicable, not only to the brain, but certainly to the heart, the generative system, the spinal cord, and, I believe, other organs of the body. I have repeatedly seen a feeble heart rendered strong, the blood corpuscles increased in number, and the color of the blood deepened by the use of 'Cardine," and I have many times seen an exhausted sexual system restored to its normal power by the use of 'Testine,' 'Cerebrine,' and 'Medulline.' "

After giving in detail the process for making the extract from the brain, "Cerebrine" (and the other extracts are made with the same menstruum, with slight variations in the proportions), the effects of "Cerebrine" upon the healthy system are stated to be as follows :

"The most notable effects on the human system of a single dose are as follows, though in very strong, robust, and large persons a somewhat larger dose is required, never, however, exceeding ten minims :

"1. The pulse is increased in the course of from five to ten minutes, or even less in some cases, by about twenty beats in a minute, and is rendered stronger and fuller. At the same time there is a feeling of distention

in the head, the perspiration is largely increased, the face is slightly flushed, and occasionally there is a mild frontal, vertical, or occipital headache, or all combined, lasting, however, only a few minutes.

"2. A feeling of exhilaration is experienced, which endures for several hours. During this period the mind is more than usually active and more capable of effort. This condition is so well marked that if a dose be taken about bedtime wakefulness is the result.

"3. The quantity of urine excreted is increased, when other things are equal, by from eight to twelve ounces in twenty-four hours.

"4. The expulsive force of the bladder and the peristaltic action of the intestines are notably augmented, so much so that in elderly persons, in whom the bladder does not readily empty itself without considerable abdominal effort, this action is no longer required, the bladder discharging itself fully and strongly, and any existing tendency to constipation disappears, and this is to such an extent that fluid operations are often produced from the rapid emptying of the small intestine.

"5. A decided increase in the muscular strength and endurance is noticed at once. Thus I found in my own case that I could 'put up' a dumb-bell weighing forty-five pounds fifteen times with the right arm and thirteen times with the left arm, while after a single dose of extract I could lift the weight forty-five times with the right arm and thirty seven times with the left arm.

"6. In some cases in elderly persons an increase in the power of vision is produced, and the presbyopic condition disappears for a time.

"7. An increase in the appetite and digestive power. Thus a person suffering from anorexia and nervous dyspepsia is relieved of these symptoms, temporarily at least, after a single dose hypodermically administered.

"These effects are generally observed after one hypodermic injection, and they continue for varying periods, some of them lasting for several days. In order that they may be more enduring, two doses a day should be given every day or every alternate day, as may seem necessary, one in the morning and one in the afternoon, and kept up as long as the case under treatment seems to require."

An agent capable of exhibiting such a striking influence over the brain and nervous system generally as "Cerebrine" has been proven to exercise could scarcely fail to be of great use in cerebral hyperæmia and its consequent phenomena characteristic of the so-called "nervous prostration," "nervous exhaustion," or neurasthenia. That it is in reality a remedy of extraordinary power has been abundantly shown, not only in my own practice in my private hospital, where patients are constantly under observation, but in the experience of other physicians of undoubted skill as clinicians. Used either alone or, as the case may require, in conjunction with "Cardine," "Medulline," "Cerebrine," or "Testine," I know

of nothing in the way of therapeutics at all equally capable of giving favorable results.

The very best results are obtained from the employment of the animal extracts in conjunction with the free use of the Buffola lithia water. Many years ago I stated my opinion of this water in cases of cerebral hyperæmia, and time has only served to confirm the favorable views then expressed.

The average dose of any one of the animal extracts made according to my published formulas is five drops two or three times a day. Of course there are so-called animal extracts manufactured by unprincipled persons, and largely advertised in the public press, which have none of the properties of those to which I refer and which do not produce the effects to which I have called attention. These are, therefore, not to be confounded with the genuine animal extracts, being absolutely devoid of all physiological or therapeutical influence.

Washington, D. C.

A Few Thoughts Regarding the Treatment of Phthisis.

By E. C. Register, M. D., Charlotte, N. C.

The object of this paper is to emphasize the value of a few new therapeutic agents for the treatment of tuberculosis, and to review and comment on others.

There is no doubt that the views of the character and the incurability of pulmonary consumption are now altered, and it is admitted that phthisis is both preventable and curable. It is probable that the attention of the profession is not called to the enormous mortality of this disease as often as it should be. It carries off, at the ages between fifteen and forty-five, more than one-third of the people who die, and between fifteen and thirty-five, nearly one-half. Yet reports show that in the last thirty years the annual rate of mortality from phthisis has been reduced by more than one-third.

Theorizing has given birth to many speculative cures for this disease, few of them, however, are of much practical value. The effort to attack with disinfectants the tubercle bacilli has met with a signal defeat, leaving us, so far as this plan of treatment is concerned, just where we were centuries ago. All the mechanical contrivances made to conquer the disease has been relegated to the past. Tonic, hygienic, and climatic measures are, with only one or two exceptions, what we have to depend upon in the treatment of pulmonary consumption.

In this disease we have all the elements of a low grade of inflammation, in a location where complete rest is impossible. It is not erroneous to say that in tuberculosis the same results of inflammation are found as occur in any portion of the body, modified or increased only by the character of the tissue involved. If the healing process takes place early, it

may leave the parts normal, probably cicatrices, if there has been loss of tissue. If, on the other hand, the inflammatory process continues, we have an embryonic condition soon converted into pus, this being more rapid in its destruction if contaminated by bacilli.

We should always bear in mind, in the treatment of phthisis, the necessity of stimulation rather than sedative measures, the lessening of the work force of the inflamed tissues, and an effort to increase the blood supply to the part. Surgeons meeting with this character of inflammations advise rest, increased blood supply to the part, and proper nutrition. They have little or no faith in drugs other than those acting as general tonics. He places his patient under regular regimen—limiting his nourishment to those foods which are the easiest to digest and the most readily assimulated. The surgeon always seeks as much rest for the effected part as is consistant with the general health of the patient. This rule should govern us in the treatment of *nearly* all acute inflammatory diseases. Especially, I should say, in the treatment of consumption.

We have many prominent physicians among us who advocate or recommend purgative medicines all through the treatment of typhoid fever, and the same class of remedies in the treatment of peritonitis, either general or localized. I must say that this plan of treatment is certainly unwise. Experience has taught us the value of the surgeon's method in the treatment of typhoid fever, phthisis, and peritonitis.

Our friends who have done so much to prejudice the profession against the old opium treatment in these diseases have done a great deal of harm. After Koch, with his tubercular serum, so excited the medical world with what he supposed to be a sure cure for consumption, the profession was quiet along this line for over a year. Then came the creosote treatment.

I have prescribed creosote in all stages and degrees of pulmonary tuberculosis, in old resolving pneumonias, in fibroid phthisis, in threatened tuberculosis from pre-existing pleurisy, and in cases of pre-tubercular anæmia, accompanied by chronic cough; have prescribed it in every way that has been recommended, both in small and large doses, by the stomach and hypodermically, and I am yet to observe any beneficial effects from its use. Other observers have had the same experience that I have had. Prof. Albu has had, probably, as large experienee with creosote in the treatment of phthisis as any one, and he says: "One patient took thirty grains daily without any noticable effects, the course of the disease was not checked, case terminatihg fatally." He further says, "I believe creosote to effect only the symptoms of the disease—for some it is a good expectorant, for other a good stomachic, and in some cases it may have a tonic effect. He says in another paper that recovery never took place in a single patient suffering with consumption in which he prescribed creosote.

Gimbel after treating over two thousand tubercular patients with

creosote, has published an extensive account of his experience with the drug. He says: "I have not used creosote in over two years, because the effects were not satisfactory." Potain says, in discussing this subject, "in half of my cases, in which it had been used, it had no effect, either favorably or otherwise. In about one-fourth of the cases it had a deleterious effect—it disagreed with the stomach." The remaining fourth of the cases he had treated improved to a certain extent, but the improvement was not greater than in cases under good hygiene without creosote.

A close examination of the literature on this subject, from American authors, show that fully one-half of them have not been able to note any real benefit from its use. From the other half we notice many expressions of uncertainty as to its real value, and only a few of them speak positively of its specific action. As I have already said, tonic, hygienic and climatic measures are what we must depend upon in the treatment of this disease —tonic remedies which improve the appetite, digestion, assimilation and nutrition are, in nearly all cases, of great benefit.

For some time I have been prescribing Palmettine Hypophosphites as a tonic in the treatment of phthisis, and I have observed better results from it than any preparation of the kind I have ever used. In connection with this, especially when catarrhal symptoms are present, I prescribe ten grains of sulphate of quinine with one-fourth of a grain of morphia sulphate, to be taken at bed-time, for three nights in every week. The value of this plan of treatment is certainly unquestionable. In five recent cases that I have had under observation, in which Palmettine Hypophosphites, with quinine and morphine has been employed, improved immediately, without a single exception. The cough at first became less at night, while remaining the same during the day. After a time, however, it gradually became less during the day. From the beginning the appetite improved. In two of the cases the sputum was tinged with blood, but this condition soon disappeared. Night sweats were at first increased, but later they grew less, and finally disappeared altogether.

To treat pulmonary tuberculosis with any degree of success, much attention must be given to dietary. Fothergill says: "With modern knowledge of digestion and body requirements, with a more perfect grip of the essential wants of the physical—of the importance of arresting all out goings, as well as of the introduction of food at once digestible and nutritious. The prospects of the phthisical are much brighter than they were at the beginning of the present century. Undoubtedly dyspepsia and phthisis go hand in hand, and the latter no doubt is often produced by the former. It is certainly very important that we should have a good understanding of the physiological facts pertaining to normal digestion, and then we would be better able to appreciate and treat the pathological states as they appear in connection with phthisis.

Defective digestion, whether from disease or unsuitable nutriment,

leads to the production of abnormal blood, and with mal nutrition, which in turn, accounts for the failure of vital action and of the organic tissues to sustain a healthy relation to the human economy. Hence, the foundation of consumption may and probably does lie in this defective digestion at the start. A practical application of the principles of dieting to the individual's needs is of great importance, whatever system of feeding is decided upon. The usual haphazard, experimental method is nearly always unsuccessful, and often productive of harm.

A phthisical patient, with a temperature of 100° F. and upwards, should be fed on liquid food entirely, as solid foods, with that degree of fever, will almost always cause indigestion. New or fresh milk is, in my opinion, the best liquid food and should always be given unless there is some special objections to its use. It will not agree with some patients, no matter how it is prepared. Where specially prepared liquid forms of food are indicated I usually recommend Liquid Peptonoids or Mellin's Food. Either of those preparations are good, and in the most of cases can be relied upon.

Starchy foods and sweets should never be given to phthisical patients; they tend to produce acidity, fermentation, intestinal catarrh, anæmia, and to favor a condition of the blood more conducive to consumption. In cases where solid food is given, tender fresh meats, steak, mutton, chickens, eggs, butter, etc., properly prepared, are the best articles of food.

An Address Delivered Before the Italian-American Academy of Medicine, December 7th, 1895.

An Argument in Behalf of a More Thorough Practical and Extensive Experimental Laboratory Work, Preparatory to the Intelligent Application of Electricity as a Remedial Agent, &c.

By J. Mount Bleyer, M. D., F. R. A. M. S., of New York City.
Member Societe Francaise D'Otologie, De Laryngologie, Paris; Member National Academy of Medicine, Mexico; Membre de la Societe Francaise D' Electrotherapie, Paris; Member of the American Medical Association; Member of the Italian-American Academy of Medicine (1st Vice-President); Member Pedro Escobedo, Mexico, etc.

The progress of medical science, during the past five decades, has brought us into new and closer relations with almost all other departments of *physical* science; but with none, however, in so intimate and indissoluble a manner as with this of *Electricity*. De la Rive, remarks truly, when he says: that the study of Electricity, as it relates particularly to medical knowledge, and practice, has become an absolutely indispensable study for every one who practices, teaches, or in any way cultivates

science, and wishes to be *booked up* to the age and day. So also of the trades, arts, and sciences; to the pharmaceutist, as well as the natural philosopher; to the dentist and physiologist, as well as to the geologist; as much to the engineer and artisan as to the modern physician; all, all have electric forces and phenomena to deal with, and consequently each has need of becoming familiar with them; at least so far as they relate to the given trade or practice, he should be enabled to interpret them, to meet them, and to turn them to good account.

A purely mental acquirement is a theorem—something to be proved. As to whether the theorem is susceptible of proof is always a question until the doubt is solved by the act of doing. Hence Comenius' definition of education—"Let those things that have to be done be learned by doing them"—is profoundly philosophical, since nothing can be fully learned without the final act of doing, owing to the fact of the incompleteness of all theoretical knowledge.

The mind and the hand are natural allies. The mind speculates, the hand testes the speculations of the mind by the errors of the mind, for it inquires, so to speak, by the act of doing, whether or not a given theorem is demonstrated in the form of a problem. The hand is, therefore, not only constantly searching after the truth, but is constantly finding it.* It is possible for the mind to indulge in false logic, to make the worse appear the better reason, without instant exposure. But for the hand to work falsely is to produce a misshapen thing—tool or machine—which in its construction gives the lie to its maker. Thus the hand that is false to truth, in the very act publishes the verdict of its own guilt, exposes itself to contempt and derision, convicts itself of unskilfulness or of dishonesty.

There is no escaping the logical conclusion of an investigation into the relation existing between the mind and the hand. The hand is scarcely less the guide than the agent of the mind. It steadies the mind. It is the mind's moral rudder, its balance-wheel. It is the mind's monitor. It is constantly appealing to the mind, by its acts, to "hew to the line, let the chips fly where they may."

Dr. George Wilson says: "In many respects the organ of touch, is embodied in the hand, is the most wonderful of the senses. The organs of the other senses are passive; the organ of touch alone is active. * * The hand selects what it shall touch, and touches what it pleases. It puts away from it the things which it hates, and beckons towards it the things which it desires. * * * * Moreover, the hand cares not only for its own wants, but when the other organs of the senses are rendered

*"In other cases, even by the strictest attention, it is not possible to give complete or strict truth in words. We could not, by any number of words, describe the color of a ribbon so as to enable a mercer to match it without seeing it. But an 'accurate' colorist can convey the required intelligence at once, with a tint on paper"—The Laws of Feesole, Vol. I., p. 7, by John Ruskin, LL.D. New York: John Wiley & Sons. 1879.

useless takes their duties upon it. * * * The blind man reads with his hand, the dumb man speaks with it; it plucks the flower for the nostril, and supplies the tongue with objects of taste. No less amply does it give expression to the wit, the genious, the will, the power of man. Put a sword into it and it will fight, a plow and it will till, a harp and it will play, a pencil and it will paint, a pen and it will speak, What, moreover, is a ship, a railway, a light-house, an electric appliance, or a palace—what indeed is a whole city, a whole continent of cities, all the cities of the globe, nay the very globe itself, so far as man has changed it, but the work of that giant hand with which the human race, acting as one mighty man, has executed his will."†

There is a philosophical explanation of the versatility of the hand so graphically portrayed in the foregoing passage, and it is found in Sir Charles Bell's great discovery of a "muscular sense." The principle of this discovery is that "there are distinct nerves of sensation and of motion or volition—one set bearing messages from the body to the brain, and the other from the brain or will to the body.

In his work on the hand, after reviewing the line of argument which led to his discovery, Sir Charles says: "By such arguments I have been in the habit of showing that we possess a muscular sense, and that without it we could have no guidance of the frame. We could not command our muscles in standing, leaping or running, had we not a perception of the muscles previous to the exercise of the will, and as for the hand, it is not more the freedom of its action which constitutes its perfection, than the knowledge which we have of these motions, and our consequent ability to direct it with the utmost precision."‡

On the influence of the muscular sense, Dr. Henry Maudsley has these pertinent observations:

"Those who would degrade the body in order, as they imagine, to exalt the mind, should consider more deeply than they do the importance of our muscular expressions of feeling. The manifold shades of kinds and expressions which the lips present—their gibes, gambols and flashes of merriment; the quick language of a quivering nostril; the varied waves and ripples of beautiful emotion which play on the human countenance, with the spasms of passion that disfigure it—all which we take such pains to embody in art—are simply effects of muscular action. * * * Fx the countenance in the pattern of a particular emotion—in a look of anger, of wonder, or of scorn—and the emotion whose appearance is thus imitated will not fail to be aroused. And if we try, while the features are fixed in the expression of one passion, to call up in the mind a quite dif-

†"The Five Gateways of Knowledge," p. 121. By George Wilson, M. D., F. R. S. E. London: MacMillan & Co. 1881.

‡"The Hand: Its Mechanism and Vital Endowments as Evincing Design," p. 151. By Sir Charles Bell, K. G. H., F. R. S., L. & E. Harper & Bros. 1864.

ferent one, we shall find it impossible to do so. * * * We perceive, then, that the muscles are not alone the machinery by which the mind acts upon the world, but that their actions are essential elements in our mental operations. The superiority of the human over the animal mind seems to be essentially connected with the greater variety of muscular action of which man is capable; were he deprived of the infinitely varied movements of hands, tongue, larynx, lips, and face, in which he is so far ahead of the animals, it is probable that he would be no better than an idiot, notwithstanding he might have a normal development of brain."*

It is through the muscular sense that the hand influences the brain. Sir Charles says, the hand acts first. It telegraphs, for example, that it is ready to grasp the chisel, the knife, or seize the pen, whereupon the brain telegraphs back precise directions as to the work to be done. These messages to and fro are lightning flashes of intelligence, which blend or fuse all the powers of the man, both mental and physical, and inform and inspire the mass with vital force.†

Through constant use the muscular sense is sharpened to a marvelous degree of fineness, and the hand, permeated by it, forms habits which react powerfully upon the mind. If, now, during an early period of one's life, the hand is exercised in the useful or beautiful arts, or in any mechanical work of whatsoever kind, its muscular sense will be developed normally, or in the direction of rectitude, and the reflex effect of this growth upon the mind will be beneficient.

It is thus that the trained hand comes at last to foresee, as it were, that a false proposition is surely destined to be exploded. The habit of rectitude gives it prescience. It invariably discovers, sooner or later, that a false proposition, when embodied in wood or iron, becomes a conspicuous abortion, involving in disgrace both the designer and the maker. A false proposition in the abstract may be rendered very alluring; a false proposition in the concrete is always hideous. One of the chief effects of manual training is then, the discovery and development of truth, in its broadest signification, is merely another name for justice; and justice is the synonym of morality.

It has been shown that thought and speech are dead unless embodied

*"Body and Mind," p. 32. By Henry Maudsley, M. D. New York: D. Appleton & Co. 1883.

†The goldsmith's art was one of the finest among the ancients, and so continued far into the middle ages. The cutting of cameos, for example, required the highest skill and produced the most exquisite results. Mr. Ruskin called attention to the fact that "all the great early Italian masters of painting and sculpture, without exception, began by being goldsmith's apprentices;" and that "they felt themselves so indebted to, and formed by, the master craftsman who had mainly *disciplined their fingers*, whether in work on gold or marble, that they practically considered him their father, and took his name rather than their own." "Fore Clanigera," part III, p. 291. By John Ruskin, LL.D,

in things. It may also be asserted with confidence that man would lose the power of speech almost wholly if his words should cease to be realized in things. Mr. Darwin declared that "a complex train of thought can no more be carried on without the aid of words, whether spoken or silent, than a long calculation without the use of figures or algebra."‡ And Dr. Maudsley says: "But neither these instances, nor the case of Laura Bridgman, can be used to prove that it is possible to think without any means of physical expression. On the contrary, the evidence is all the other way. The deaf and dumb man invents his own signs, which he draws from the nature of objects, seizing the most striking outline, or the principle movement of an action, and using them afterwards as tokens to represent the objects. The deaf and dumb gesticulate also as they think; and Laura Bridgman's fingers worked, making the initial movements for letters of the finger alphabet, not only during her working thoughts, but in her dreams. If we substitute for 'names' the motor intuitions, or take care to comprise in language all the modes of expressing thoughts, whether verbal, vocal writing, or gesture language, then it is unquestionable that thought is impossible without language."*

As connected thoughts are impossible without words, or signs of words, so words are dependent upon objects for their existence. Says Dr. Maudsley, "Words cannot attain to definiteness save as living outgrowths of realities," and Heyse says, "Thought is not ever present to the thinker till he has set it forth out to himself."

It follows that language has its origin not less in external objects than in the mind. Objects make impressions upon the mind through the sense, and words serve as the means of preserving a record of such impressions and of communicating them to other minds. If, now, the mind should cease to receive impressions, language would no longer be required, since there would be nothing to express; and the occasion for the use of language ceasing to exist, the power of speech would ultimately be lost. The power of speech, then, depends upon a continuous succession of impressions made upon the mind by its contact, through the senses, with matter in its various forms, whether in nature or in art.

It may also be claimed that the power of speech depends almost entirely upon the endless succession of fresh objects presented to the mind by the hand. These form the subject as well as the occasion of speech. If the hand should cease to make new things, new words would cease to be required. The principle changes in language arise out of

‡The "Descent of Man," p. 88. By Charles Darwin, M. A. New York: D. Appleton & Co. 1881.

*"Physiology of the Mind," p. 480. By Henry Mandsley, M. D.

"I therefore declare my conviction," says Max Muller, "whether right or wrong, as explicitly as possible, that thought in one sense of the word, i. e., in reasoning, is impossible without language." Physiology of the mind, p. 48 By H. Maudsley, M. D.

new discoveries in science and new inventions in art, each fresh discovery of science giving rise to many new things in art. Art and science react upon each other.†

It comes to this, that progress can find expression only in the concrete. Guttenburg had an idea that he could employ movable types in the production of books. Suppose he had been content with the mere promulgation of his theory in words, and that those who came after him had been similarly content? There would have been no printing-presses down to the present time. Suppose that Watt and Stephenson and Fulton had been content with the declaration, in words, of the discoveries they made in regard to the application of the power of steam to practical purposes, and that those who came after them had been similarly content? There would have been neither railways, nor steamships, nor steam-driven machinery of any kind and since important discoveries down to the present time.

As words are essential to the processes of thought, so objects are essential to words or living speech; and as all objects made by man owe their existence to the hand, it follows that the hand exerts and incalculable influence upon the mind, and so constitutes the most potent agency in the work of civilization. It was not without good reason that Anaxagoras characterized man as the wisest of animals, because of his having hands. And what is it to be wise? To be wise is "to have the power of discerning and judging correctly, or of discriminating between what is true and what is false; between what is fit and proper, and what is improper." The hand is used as the synonym of wisdom, because it is only in the concrete that the false is sure of detection, and it is through the hand alone that ideas are realized in things.‡ Again we have the hand as the discoverer of truth.

The assertion of the majesty of the hand by the Tonic philosopher of the 4th century, B. C., contained the germ of the manual training idea of this latter part of the 19th century. Anaxagoras was unconsciously, no doubt, struggling towards the light, towards the inductive method of investigation, towards the sole avenue through which it is possible to study the mind, namely, through the body. The ignorance of the ancients on the subject of physiology, was so dense as to leave them no resource save speculative philosophy. The progress made in the study of anatomy, and organic and inorganic chemistry at Alexandria, was, however, con-

†"And the great advances in science have uniformly corresponded with the invention of some instrument by which the power of the senses has been increased, or the range of action extended." Physiology of the Mind, p. 8. By H. Maudsley, M. D.

‡"Let him once learn to take a straight shaving off a plank or draw a fine curve without faltering, or lay a brick level in its mortar, and he has learned a multitude of other matters which no lips of man could ever teach him." Time and Tide, p. 145. By John Ruskin, LL.D.

siderable. The foundations of a systematic physiology were being securely laid by Hippocrates, Herophilus, and their compeers of the medical profession, and the way was thus being opened to an intelligent study of the mind. It is highly probable that this growing disposition to investigate things, together with the increasing importance of civilization of the useful arts, would soon have reacted destructively upon the speculative philosophy of the time had not a series of national disasters, involving the fall of Greece and Rome, overwhelmed both arts and philosophy in one common ruin.

From the fall of Rome to the time of Bacon speculative philosophy dominated the world. Progress dates from the beginning of the 17th century, but it was very slow until within a hundred years. Instead of speculating about the "theory of vitality," it concerns itself with "the natural phenomena of living bodies, so far as they are appreciable by the human senses and intelligence."

But the schools have not moved forward with events. Their methods are unscientific; they are still dominated by the mediæval ideas of speculative philosophy. One of the ablest educators in this country has well observed that, "there has been very little change in the ideas which have controlled our methods of education, and these ideas were formed something like four hundred years ago. Like nearly all the great agencies of modern civilization, the established system of education dates from the Renaissance, and the direction given to the schools at that time has been followed with but slight modification ever since."*

The justice of this arraignment of the schools for extreme conservatism is shown by the remark of a prominent educator who opposes the incorporation of manual training in the curriculum of the public schools. He says: "Some even go so far as to regard the fingers as a new avenue to the brain, and think that great pedagogic advantages will be given by the new method, so that boys may make equal attainments in arithmetic, reading and grammar in less time. * * * * Teachers will still find the eye and ear nearer to the brain than the hand." No assumption could be more false than this, that the eye and the ear are more important organs than the hand, because they are located, physically, nearer the brain. The attribute of mobility with which the hand is endowed confers upon it not only the potency of the closest possible proximity, but each of the countless positions it may assume, together with its flexibility and adaptability, multiplies its powers in the order of a geometrical ratio.

[*To be continued.*]

*Mr. James MacAlister, Superintendent of Schools of the City of Philadelphia before the American Institute of Instruction at Saratoga, July 13, 1882.

PYROZONE.

(3 per cent. Aqueous Solution.)

THE name PYROZONE is applied by the manufacturers to absolute H_2O_2. The 3 per cent. aqueous solution answers to the tests of the new U. S. Pharmacopœia, with the additional advantages that it is pressureless and permanent, losing none of its energy until used. It is far superior both in exactness of strength and keeping qualities to the usual strength of peroxide of hydrogen. Dr. Bansford Lewis says: "Pyrozone is certainly an advanced step."

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THIS valuable diuretic has been extensively used by a great number of prominent practitioners, among whom may be mentioned DuJardin-Beaumetz, Masius, Demme, Erb, Keyes, Babcock, Herrick, Henderson and many others, in the treatment of **Dropsy, Heart Disease, Scarlatinal Nephritis, Rheumatism,** and as a general **Diuretic.**

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A prominent Physician writes: "I have used Tartarlithine in the treatment of about a dozen cases of my own with results that are little less than wonderful. The characteristic feature of its action is the rapidity and promptness with which patients improve under its use. An improvement is noticeable within 24 hours"

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HAS been extensively employed in **Rheumatism, Neuralgia, Cephalalgia,** etc., and in the treatment of **Pain** generally.

Exalgine is largely used at the present time in Germany in the treatment of **Chorea,** for which it was originally recommended by MONCORVO, and extensively used by LOWENTHAL, of Berlin, and DANA, of New York. The dose should not exceed 2 or 3 grains three times a day at first.

Literature on the above, also on Albolene and Albolene Atomizers, Pyrozone Atomizers Comp. Stearates, Pulverflators, McK. & R. G. C. Pills, Fluid Extracts, &c., furnished on applying to

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Filaria of the Eye with Specimen.

At the October meeting of the Berlin Medical Society Dr. Hirschberg exhibited a worm-filaria loa, which he had extracted from the eye of a negro. It was recognized as the female by its rounded head and pointed tail, and it was found between the conjunctiva and the sclera. The doctor stated that a French physician, Dr. Vigo, while travelling in Angola had noticed that this worm was frequently present in the eyes of the negroes, and he had performed five operations for its removal, two of which were successful. Recently a physician of the French navy removed a similar parasite from the eye of a Congo negro and another physician residing at Gabon observed analogous cases and claims to have found that the worm could migrate from one eye to the other by a subcutaneous route around the root of the nose. This parasite has also been observed in America and in the Antilles at the time slaves were imported. Europeans who reside, or who have resided, in countries where this parasite exists may also be bearers of it. The mechanism of its introduction remains a mystery. It is said that mosquitoes swallow the larvæ of this parasite with the blood which they suck, and that they develop in the insects and are then introduced into water. The worm exists in endemic condition from the fifth degree of north latitude to the tenth degree south latitude on the west coast of Africa.

Syr. Hypophos. Co.--Fellows.

Containing the Essential Elements of the Animal Organization—Potash and Lime;

The Oxidizing Agents—Iron and Manganese;

The Tonics—Quinine and Strychnine;

And the Vitalizing Constituent—Phosphorus; the whole combined in the form of a Syrup with a SLIGHTLY ALKALINE REACTION.

IT DIFFERS IN ITS EFFECTS FROM ALL ANALAGOUS PREPARATIONS; and it possesses the important properties of being pleasant to the taste, easily borne by the stomach, and harmless under prolonged use.

It has Gained a Wide Reputation, particularly in the treatment of Pulmonary Tuberculosis, Chronic Bronchitis, and other affections of the respiratory organs. It has also been employed with much success in various nervous and debilitating diseases.

Its Curative Power is largely attributable to its stimulant, tonic and nutritive properties, by means of which the energy of the system is recruited.

Its Action is Prompt: it stimulates the appetite and the digestion, it promotes assimilation, and it enters directly into the circulation with the food products.

The prescribed dose produces a feeling of buoyancy, and removes depression and melancholy; *hence the preparation is of great value in the treatment of mental and nervous affections.* From the fact, also, that it exerts a double tonic influence, and produces a healthy flow of the secretions, its use is indicated in a wide range of diseases.

NOTICE--CAUTION.

The success of Fellow's Syrup of Hypophosphites has tempted certain persons to offer imitations of it for sale. Mr. Fellows, who has examined samples of these, **finds that no two of them are identical,** and that all of them differ from the original in composition, in freedom from acid reaction, in susceptibility to the effects of oxygen when exposed to light or heat, **in the property of retaining the strychnine in solution,** and in the medicinal effects.

As these cheap and inefficient substitutes are frequently dispensed instead of the genuine preparation, physicians are earnestly requested, when prescribing the Syrup, to write "Syr. Hypophos. **Fellows.**"

As a further precaution, it is advisable that the Syrup should be ordered in the original bottles; the distinguishing marks which the bottles (and the wrappers surrounding them) can then be examined, and the genuineness—or otherwise—of the contents thereby proved.

Medical Letters may be addressed to

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The Charlotte Medical Journal.

E. C. REGISTER, M. D., J. C. MONTGOMERY, M D.,

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Articles intended for the Original Department of the Charlotte Medical Journal will be accepted on y with the understanding that they are contributed to it exclusively.

CAN INFANTS DIGEST STARCHY FOODS?

Writers on paediatry, and I may say physicians in general, have heretofore and on what seems to us insufficient ground assumed, that infants cannot digest starch and hence it should have no place in their dietary. So far as we know the principal grounds for this belief are, the rudimentary conditions of both the salivary glands and the pancreas at birth, and the small quantity of or the entire absence of salivary secretion for the first three months of life. Dr. T. M. Rotch in his late work makes this rather native statement: "A sign which aids us in judging the progress of the development of this function (digestion) is the appearance of the teeth, calling our attention to the fact that, nature is preparing the infant to digest and assimilate a form of food, different from that which it has thus far received by sucking." Is it not rather an evidence that it (the infant) is better prepared to cut, tear and break the envelopes containing the foods in the uncorked state, a condition largely prevalent in premature life. It indicates progress on the road to provide food for itself rather than any ability to digest. It is no proof whatever, that with all the facilities of modern times in the grinding triturating, cooking and preparing these foods, the functions were not up to this time, sufficiently developed to digest them. Some time ago, being, impressed with the prosperous condition of some starch fed infants we instituted some experiments, crude and inconclusive, perhaps, but still worthy of mention. The infants of the first series were fed on plain cornstarch, those of the second series with patent Barley and those of the third and last on Carnricks Soluable Food. The series 1 and 2 had cow's milk mixed with the food, the last had nothing but water, ages ranged from one month to one year. The conditions were noted and the faeces were examined and were normal, healthy and no starch was found. The rudimentary condition of salivary glands and pancreas is not a conclusive argument, for all

the Alimentary Canal is comparatively rudimentary but being in a *nascent* condition, as it were, its functions like all the functions of infantile life are much more vigorous relatively than like ones in adult life. Moreover, in the controversy between Dr. R. G. Eccles and Dr. D. E. Keefe in New York Med. Journal 1895, it was proven that starch could be digested even without saliva or diastase, however valuable and desirable they may be.

We are not aware that entire absence of pancreatic juice at any age has been claimed so far as we are aware, much less proved by any physiologist.

The ordinary temperature of the body and the secretions of the alimentary tract, furnish not only the requisite but very favorable conditions for malting or changing starch into sugar. No better conditions exist in any maltsters establishment, and while it is true that the body heat is not quite so high as that required to develop diastase in the laboratory yet when we remember the words of the great Trousseau regarding the application of the conclusions drawn from laboratory experiments to nature and when we remember the other advantages of natures laboratory it seems not too much to assume, that nature in the digestion of grains produces a diastase which aids further in the digestion of starches.

We must not forget that all the fluids of the entire alimentary tract, excepting perhaps the gastric juice, have a converting action on the starch, even the scanty secretion of the colon, where we are wont to expect nothing but refuse. Therefore, while we should as far as possible stick to the food furnished at natures font, we need not be to gloomy in our prognosis if obliged to resort to mixed or artificial feeding. If fermentative or putrefactive changes have already occurred before this administration. If in a word they are sterile, we will many times be surprised how well they are digested and assimilated.

CAN OLD AGE BE POSTPONED?

The average man has ever held old age to be a calamity. The Rosicrucians, the Alchemists and Pons de Leon were the prototypes of the people of to-day. The desire for the elixir of life is as strong with the present generation as it was with those who have been gathered to their fathers. Modern science has done much to add to the sum total of human existence, but while it has demonstrated the absurdity of the dream of indefinite life, it has not been able to quench the desire.

It has been tersely declared that a man is just as old as his arteries. The characteristic of old age is atheroma, and when we shall have discovered how we may postpone this form of degeneration we will be able to answer the question above proposed in the affirmative. The blocking up of the blood vessels with calcareous matter hinders nutrition. Man

commences in the gelatinous state and ends in the calcareous. Can the evil day of this calcareous state be put off? The Hon. Joseph Medill, the distinguished Chicago editor, has been making a series of systematic investigations, which are very creditable for a layman, and which lead him to believe that it can. His conclusions are much like those of Dr. B. W. Richardson, of London, who peopled his model city of Hygeia with a race who subsisted on fruits and drank rain water. Mr. Medill would substitute distilled water for rain water. Water is the great solvent, and in its passage through the various soils takes up the salts which they contain. Taken into the system with the drink these salts are deposited chiefly in the arteries, "blockading the streams of life as doth the chilling wind of winter the mountain rivulets."

But there are other bearers of this calcareous incubus than the water we drink. The cereals contain it in abundance, and the flesh of old animals is rich in it. The more nitrogenous the food we ingest, the more we lay ourselves open to the deposit of the calcareous salts, the phosphates and the carbonates of limes, and in proportion to the extent of this deposit we become physiologically old, although we may be chronologically young. To the extent that this deposit is prevented we are physiologically young, though in point of years we may be patriarchs of the antediluvian order.

If, then, man would attain length of days he must, in addition to eschewing the notoriously viscious habits, eat moderately of nitrogenous food and drink rain or distilled water. Fruits, rather than bread, must be his staff of life, and when he partakes of flesh it should be that of young animals, fish and poultry. After the body has attained its growth the purpose of food is merely to repair the waste of tissue. More food than is necessary to do this is a burden to the system. Each man must be a rule unto himself as to the quantity he may eat, but those who do not take active out-door exercise, or put forth much physical effort in the struggle for existence, will be surprised to know how little food the body actually and physiologically requires. A glass of water containing fifteen drops of dilute phosphroric acid, taken three times a day, is suggested as a solvent in the case of those who have not taken the necessary precautions against the deposit of the deleterious salts referred to.

UNWRITTEN MEDICINE.

Beyond any peradventure there has been much improvement during the past few years in the teaching of young men whom it is intended shall at the end of the prescribed time be furnished with diplomas certifying to their fitness to assume the duties and the responsibilities of medical practitioners. The effort of the lowest medical schools has been along the line of approaching medicine to the status of an exact science. Instru-

ments of precision and minuteness of research have combined with the bacilli theory to make us feel each year that we stand on a higher plane, and even the more recent graduate lays the flattering unction to his soul that he is infinitely better qualified to grapple with disease than is his older brother who was launched forth, say a quarter of a century ago.

We would by no means be understood as seeking to imply that it is not the best thing to send the young man forth completely equipped with the knowledge of the schools. We do aver, however, that possessing all this and lacking something which neither the text-books give, nor lectures, nor microscope, nor test-tube can impart, he is not properly qualified for his life's work. That something is the "unwritten knowledge which constitutes the consummate skill of the experienced medical man," as Hartshorne puts it. This unwritten knowledge is, however, not absolutely unwritable, if we may be permitted the use of the word. It is not written chiefly because those who achieved it come by it in such a natural and easy way that they under-rate its importance. It seems to them, coming as it does, too trivial for publication, the impression being that only that which is difficult of attainment, the result of severe study and methodical experiment, is worthy of record. They assume that all must be familiar with what is to them so easy. In this manner the young practitioner is obliged to wait for years for much essential knowledge—to wait frequently until he acquires it at the expense of his patient.

The above reflections prompt the remark that our older practitioners leave unimproved the opportunity of doing an inestimable service to the cause of practical medicine. Most of them have not had the necessary training, neither have the necessary time, for exhaustive research and scientific experimentation. This class of work is, as a rule, done by the recent graduate. It is, of course, valuable in its way, but the really servicable contributions are the bright-red scintillations from the anvil of experience. They occupy little space, but the journal which catches them is the one which is most helpful to those whose every-day business it is to relieve pain and restore the equilibrium of health.

FACIAL DIAGNOSIS.

Most every physician and surgeon is familiar with the part that the patient's face plays in the diagnosis of disease, the face, the eye, the attitude or movements. There are many physicians who have been observant, often comes to the most important and perfectly sound conclusions about the state of his patient's heart and lungs before ever he takes out his stethoscope. What is here noticed at least makes out a *prima facia* case for examination in a certain special direction. Some men have remarkable gifts in this line of diagnosis, and all men ought to cultivate the observation of such facts. When we look back over the list of our great and best

physicians we find they all have done so, and herein lay their success in a large measure.

It is analogous to that wonderful faculty which the great leaders of mankind in all ages have possessed, that of reading their fellow men's characters and estimating their capacities rapidly but surely from slight indications, It is a noticeable fact, however, as some one has said, our greatest physicians have also been mostly great men.

There are two foundations upon which physiognomical diagnosis rests. One rests on the effect of local or general disease on the features, attitude, skin, and eye through the brain cortex. The muscles of the face are the medium through which the mind muscles give expression, and they often tell in readible form, to those who observe them acutely, many most important and striking mental relationships of disease.

Laycock says: "Study well the physiognomy of disease—that is to say, all those external characteristics in the patient that reach the unaided senses, and which are associated"—associated, I would point out, chiefly through the brain cortex—"with morbid states, whether they be sounds or odours or visible and tangible modifications of form, complexion, expression and modes of functional activity, taking cognisance of minute modifications as well as of the more obvious, for they are only minute in a popular sense." If this is done, it is as truly a "scientific" mode of diagnosis as any stethoscopic or chemical investigation. No doubt some persons are more tell-tale physiognomically than others, that is, there is in them a closer and more constant relationship between the organic and sensory centres in the cortex, and the mental and motor centres that control the face and attitudes; their mental reflexes are, in fact, more acute.

THE CHARLOTTE MEDICAL JOURNAL.

No medical paper that comes to our office is more readable and interesting than *The Charlotte Medical Journal.* It deserves a good place among the medical literature of the day, and we doubt not its editors have met with commensurate financial success. In an age when men hardly dare to read a chapter in the Bible for fear that they will find an advertisement lurking therein, this journal keeps its reading matter pure and consequently valuable. Sensible men will search the ads. of such a journal with confidence, and the firms who take space with them will find it all the more profitable on that account. We say this much without their knowledge, consent or approval.—*The General Practioner.*

The above is a compliment, that is certainly very much appreciated, coming as it does, without our knowledge from a medical journal, edited and published by Professors French, Blackmer and Powell, three of the best known physicians in this country.

RETRO-BULBAR NEURITIS.

Neuro-Retinal Toxaemia from Excessive use of Alcohol, Tobacco, etc., or Lead Poison.

Amblyopia, partial or complete, associated with various nervous phenomena, simulating Cerebral Disease, is an affection more often met with than is supposed; it is probably more prevalent with male than with females, not on account of sexual differentiation at all but because of the fact that these and other similar drugs may find their way into the system by habitual use in men more than in women.

From the fact that not all of the symptoms are referable to the eye and from the further fact that the amblyopia comes on as a later symptom, sometimes long after the other manifestations have become well marked we find that these cases are easily mistaken for cerebral affections, and treated as such, thereby allowing much valuable time to be lost before the true nature of the affection is discovered.

The deterioration of vision from the abuse of tobacco has long been known as a clinical fact, although it was not well understood and no very clear explanation, based on anatomical and physiological ground have been given. The action of tobacco, for instance in different individuals is so various and uncertain, some persons apparently becoming immune as it were to its toxic effects, by long usage while others give earlier evidence of its ill effects in nervous tremors, cardiac, and other disturbances, that we have no certain land marks to guide us in our relations as physicians to those whom we know to be more or less given to its use. Moreover amblyopia from alcohol as a rule is not so prevalent in those individuals who are classed as inebriates; in such persons we find that periodical excesses are followed by intervals of freedom from its use, during which the process of elimination goes on quite readily, and nature comes to the relief of the patient so completely as to leave behind but very little traces of its effects. It is however in the habitual, though not excessive drinker that we find the evil effects of alcohol on the eye. In Europe, on the continent, where the laboring classes are accustomed to rise early and seek their employment with a very light breakfast, sometimes not eating for an hour or two after they rise, they are in the habit of taking the early morning draft of "liquer" or schnapps" upon going to work, and at nine or ten o'clock stopping for a half hour or so for breakfast. In this country also while we find no such habits of life among the laboring classes, yet there are many individuals who do take spirits early in the morning before they eat their breakfast and follow this practice for years. They are not classed as drunkards, on the other hand bear the opposite reputation; but with all that will be found on close examination to be steady drinkers.

Lead Amblyopia follows the same rule. The writer remembers to have seen a case of this disease in the person of a country merchant, in whom there seemed to be no possible chance to make out a diagnosis, as he had handled no paint or in any way been exposed to white lead in a great many years; yet there was the blue line around the gums, and the accompanying retinal disturbance plainly indicative of toxicity. It finally developed that he was in the habit of *chewing shot* which he kept as amunition; a most peculiar habit yet one that he had followed for years, never dreaming that it was at all pernicious. Another case was that of a man whose business was to paint the numbers on freight cars. In both these cases the administration of dilute sulphuric acid was followed by a rapid and complete cure of the amblyopia as well as the other general symptoms.

The pathological changes in the optic nerves are not always easily made out; especially is this the case in the earlier stages of the disease. It is not until later that positive changes can definitely be made out with the opthalmoscope. Still the testing visual field will reveal much that is interesting. The color scotomas are in many cases present before the retinal changes are visible.

Of the change in the optic nerves, it may be said that the pathological lesion is in the nature of a more or less pronounced atrophy of the axial, fibers of the nerve. The temporal side of the discis generally of a paler and brighter hue than the nasal side; sometimes it looks metalic or the least bit bluish white. Absolute atrophy with blindness is rare, but post mortem appearances of the nerves show lesions to exist. These are according to Uhthoff, Nettleship, Bunge, Forster and others, marked changes in the fibers which supply the central portion of the retina; and consist of a wedge shaped cluster on the temporal side of the disc, occupying nearly all of the inner and lower quadrant. It would seem from this fact that the central scotoma for red would be explained on physical grounds. As a general proposition it is now pretty well accepted as a fact that the marginal fibers of the disc, end in its near vicinity, while those fibers which enter near the nasal side go to the central part of the retina, while the more central fibers go to the periphery of the retina. Red being the end of the spectrum first to be appreciated, it would follow that those fibers around the macula being first to undergo pathological change, would give us the scotoma for this particular color, and in the region in question. Following this we may sometimes have according to Nettleship a ring scotoma for green. Noys states that in rare cases there may be a similar scotoma for blue.

Concerning the treatment, but little need to be said beyond the first and most important point vis the establishing of a clear, rational and unerring diagnosis; the rest follows "*Ex necessaria sequitur.*" Total separation from the toxic agent in question once and for all; in the case of lead

this will be easy enough in most instances, but with tobacco and alcohol not so easy. Resolutions and promises made in good faith will frequently be broken. Alteratives among the drugs will avail something, among which we hale Iodide of sodium, Strychnia Nitrate, by hypodermic injection will accomplish much, and electricity and the Turkish bath will avail. The insomnia which so frequently accompanies these cases should be controlled, but this will usually give way to refreshing sleep as the improvement from the other remedial measures progresses. The prognosis is in many cases good but much time may be consumed, and great patience be required both on the part of the patient and the doctor, before a final recovery occurs.

THE ABORTIVE TREATMENT OF TYPHOID FEVER.

Until within a comparatively few years the idea that typhoid fever could be aborted or even materially curtailed as to its fixed course of from twenty-one to twenty-eight days, was scouted by the authorities, and even now the majority hold such an idea as preposterous. Latterly, however, and chiefly through the writings of Dr. Woodbridge, of Ohio, the possibility of such abridgement is maintained by a considerable number of competent observers. Among the latter we may instance Dr. J. J. Mulheron, of Detroit, who contributes a report on the subject to the Harper Hospital Bulletin. The report covers a period of eighteen months, and of the twenty-six cases treated seventeen occurred in the doctor's service in the hospital. The report shows twenty-five recoveries, and the average duration of the fever thirteen and a fraction of days for each case. Defervescence was permament in one case in five days; in two cases in six days; and in three cases in seven days. In six cases defervescence was complete before the end of the second week. In eight cases the fever had disappeared between the fourteenth and the eighteenth days. Of the five remaining cases one continued twenty-two days; one, twenty-four days; two, twenty-five days, and one, twenty-seven days. The treatment employed was a combination of the antiseptic, eliminative, antipyretic and nutrient. In seventeen cases the two following prescriptions were adhered to for antisepsis:

℞ Tr. iodi
Acidi carboli.. ...a a..... gtt xx.
Liq. ammon. Acetatis..... ℥viij.
M. Sig.—Give tablespoonful every 3 hours.

And alternate with—

℞ Magnesii hyposulphitis..... ℥ss.
Aquæ camphoræ..... ℥viij.
M. Sig.—Give a tablespoonful every 3 hours.

The hyposulphite was given to secure the action of the sulphurous acid which is liberated by the decomposition of the salt in the intestines

and which imparts its characteristic odor to the dejecta: In eight of the cases the following (after Dr. Woodbridge's method) was given:

℞ Calomel..... gr. x
Thymol.....
Eucalyptol,.....
Salol.....a a..... ʒi
Guaiacol carb..... ..... ʒii
M. Div. in capsules xx.
Sig.—Give one every 3 hours.

When the bowels did not move oftener than four times in the twenty-four hours they were not interfered with. When they were constipated laxatives were given. The antipyretic relied on was the cold bath or cold sponging, which was employed when the temperature reached 103° F. Sterilized milk was the nutrient given, the quantity never being allowed to exceed three pints during the twenty-four hours—six ounces with a tablespoonful of lime water every three hours. Alcohol was employed only when the heart furnished the indication.

Dr. Mulheron argues that the acceptance of the germ theory of the causation of typhoid fever renders the expectant treatment of the disease illogical. Conceded that the Eberth bacilli are the cause, he asks if it is unreasonable to believe that the disease may be modified both as to its severity and its duration by the destruction and the removal of these germs. While he does not agree with those who hold that the disease can be jugulated in every instance, he does not believe that the victim is necessarily doomed to a three or four weeks' run of the fever. There is certainly food for reflection in the argument which he makes.

DIPHTHERIA ANTITOXIN.

Further studies and clinical experiments in the use of the diphtheria antitoxin, has placed this remedy in a clearer light. In a recent paper read before the Philadelphia County Medical Society, by Dr. Edwin Rosenthal (an abstract of which appears on another page) much has been done to clear up the obscurity. Dr. Rosenthal has taken the position to refute the statements made by the antagonists of antitoxin regarding the "toxic effects on the heart, blood, kidneys and nervous system. And in comparative statistics, compiled with the aid of numerous users of the antitoxin, has shown that the dangers attributed to its use does not in reality exist. There may be some defect in the serum employed, which is more the fault of the manufacturer than of the remedy. Another very important point brought out in this interesting paper was the fact that antitoxin whilst a specific against diphtheria, was not a cure-all by any means, and if the means now so generally employed was neglected, disappointment would be more apt to be the rule than the exception. The marvellous reduction in the death-rates in New York, Boston and other

cities in this country; and in Berlin, Munich, Vienna, &c,, in Europe, can only be attributed to its use.

Three things are important to know when using antitoxin:

1st. That a single dose of antitoxin is not always sufficient to counteract the poisonous infection.

2d. Whilst it may counteract the results of the Loeffler bacilli, it does not prevent its continued growth at the site of infection—throat, nose, &c. —and the patient may still be dangerons to infect others even after all usual traces have disappeared.

3d. It does not combat other infection as the streptococcus or the like, it may prevent it if used early enough; but other treatment must be used in conjunction to make a favorable result.

WHICH IS THE QUICKER ANAESTHETIC CHLOROFORM OR ETHER?

There seems to be considerable confusion among physicians as to whether Chloroform or Ether is the more prompt in producing anæsthesia. This want of positive knowledge extends even to distinguished writers on the subject. We have given the matter some attention and although our records are not completed we may safely endeavor to decide the question so far as our experience will allow. The reason of the dissonance is the many and divergent ways of administering them, and the want of thought before expressing an opinion. One remembers that Choloroform is three times as strong and that it usually causes less coughing and chocking and struggling than Ether. He consequently concludes it must be more speedy in action. This would obtain could we push the administration of Chloroform with as little regard to admixture of air as Ether. We must remember that with the simple exception of Dr. Lewis A. Sayre the profession is a unit in the belief that the inhaled vapor ought not to contain more than three per cent. of Chloroform. So that we are forced to make haste slowly. Given in this way it will generally take five to eight minutes to produce sleep. Ether may be given with the free admission of air or with closed cone and we have reported a series of 120 cases with closed method when time averaged 2¾ minutes. If given by open method it may consume seven to fifteen minutes or more. We think a little more concentrated vapor than three per cent. chloroform may be given with safety but should any accident happen the physician might be considered culpable because he went beyond the accepted rules of safety. We may say in conclusion that

(A) Ether when pushed, (closed cone) and Chloroform given in the usual manner, the Ether is the quicker.

(B) In children where 20 to 30 drops in closed cone may be safely given and in plethoric fighting cases Chloroform is quickest and best.

(C) Ether given by open cone and Chloroform by ordinary method there is not much difference in the time required.

PHOTOGRAPHY THROUGH SOLIDS.

When the electric lamp was brought to such perfection that a tiny one could be passed down into the stomach, it was expected that important results would accrue from the use of such internal illumination in the outlining of tumors, etc., which had produced thickenings of the parietes of this organ and of the tissues of adjacent parts. In like manner it might be used in disease of the bladder or bowels. As a matter of fact we hear little of such explorations.

At present the newspaper world is much excited over the possibilities of a method of photography by certain electric waves or rays which develop their potency only under peculiar circumstances, and which can produce their impressions without hinderance by opaque substances, such as the soft tissues of the human body, interposed between their source and the sensitive photographic plate.

For example, when the arm is placed between their point of origin and the sensitive plate the outline of the bone, which is resistant to their penetration, is clearly distinguishable in the photograph, amid the penetrable soft tissues.

The worker, who has brought this phenomenon to the attention of the world, is Professor Roentgen. In order to secure this wonderful result a very powerful current of electricity is passed between metallic electrodes through a glass tube whose air has been exhausted as completely as possible. Such a tube will not only become luminous but will emit electrical "currents," which can pass through soft tissues and photograph any less permeable substances found in these tissues. Bone "casts shadows," if we may so express it. So also does lead, and it is suggested that bullets buried in soft tissues may thus be detected by photographs. It is proposed also to use this method for the study of cases of fracture and of malformation where the relation of very dense tissue-masses is uncertain.

The discovery, however important as a step forward in our knowledge of electricity, is not likely to prove of much use in medical or surgical diagnosis.

ALCOHOL IN THE THERAPEUTICS OF PNEUMONIA.

The late Prof. A. L. Loomis who was an undoubted authority on diseases of the chest, in an address delivered about a year before his death said: "There is no proof that we have reduced the death rate of pneumonia one iota in the last forty years," and we think the correctness of this statement cannot be questioned. We have gone from the reducing medication and blood letting which had been the vogue just prior to that time, to the opposite extreme without making any apparent gain.

Indeed considering the number of new appliances for the comfort of

the patient, the preparation and administration of medicine, the advance in our knowledge of the etiology and nature of the disease we have distinctly retrograded. Notwithstanding our oft repeated and unfortunate experience, when our patient is going from bad to worse, we call in wise counsel and are asked, how much brandy or whisky we are giving, when we reply a drachm an hour we are told to double the quantity, "to see if this will bridge him over until the (specific fever) subsides and the lung clears up." But doctor, do you think this will cure him? "Oh no, but that is all we can do." Is it not time to call a halt in this continuous stimulation, especially as it has been proven time and again, that when we dose in this manner we lose the fight just the same. Why load the patients brain and stomach, and put him to the expense of buying alcohol? If he is to die let him die without over dosing. It has been repeatedly proven that alcohol is neither a food nor a promoter of energy. It stimulates the functional activity and calls into play our reserve vitality and that only for a short time. Just as a horse harnessed to a load, the drawing of which requires all his strength, when he comes to a hill he is unable to proceed, till goaded to madness by the lash he calls upon his reserve vitality. Let this be too frequently repeated however, and the time comes when he has no more reserve power; when he "quits" and the lash falls uselessly on his poor sides. So our heart goaded by alcohol performs great work, but only for a short time. The greater the stimulation and exageration of function, the greater the reaction and weakness, and there comes a time when the heart stops work. *There may be a time*, a combination of circumstances, when resolution is begun and the sudden obstruction of a bronchial tube, or some other mishap puts a sudden momentary burden on the heart that one or two ounces of brandy may save a life, but rest assured that the giving it hour after hour and day after day is, not only, no benefit but is positively pernicious. If after keeping a patient well under alcohol six or eight hours with no benefit we are disposed to think it contraindicated and that it should be discontinued, or at most given so sparingly that no reaction will follow.

NO NEW SCHOOL FOR HER.

Mrs. Scroggles.—Do you believe in this Munroe doctorin'?

Mrs. Wayback.—No I don't. I gave up homopathy for Christian Science three years ago, and I ain't goin' to change agin.

The application of heat over the heart, and the application of hot and cold water to the spine in rapid alternation, is a much more effective means of arousing the heart to activity than the administration of alcohol.

BOOK REVIEWS.

THERAPEUTICS OF INFANCY AND CHILDHOOD. By A. JACOBI, M. D. Philadelphia: J. B. Lippincott Co, 1896.

This book contains 518 pages, and is divided into the following sixteen chapters :

1. Feeding of Sick Children. 2. Treatment of the Newly Born. 3. General Therapeutics. 4. Constitutional Diseases. 5. Infectious Diseases. 6. Diseases of the Digestive Organs. 7. Diseases of the Genito-urinary Organs. 8. Diseases of the Respiratory Organs. 9. Diseases of the Organs of Circulation. 10. Diseases of the Nervous System. 11. Diseases of the Skin. 12. Diseases of the Ear. 13. Diseases of the Eye. 14. Diseases of the Muscles. 15. Diseases of the Bones and Joints. 16. Addenda.

There are few books sent out by publishers that will receive a more cordial welcome than the one before us. Dr. Jacobi's life long work in the study of diseases of children, his natural talent in this line eminently fitted him to write this book. A large portion of the work is devoted to diet and hygiene, and a good deal also to the consideration of the action of medicines. Dr. Jacobi is a great believer in medicines. What the knife is to the surgeon, he says, drugs are to the physician. The knife does not make the surgeon, nor do medicines make the physician ; both, however, are indispensable. The subjects of etiology and symptomatology occupy prominent places in this book, also the subject of diagnosis is considered in a clear and brief manner.

In the last chapter the topics discussed are Laborde's method of treating asphyxia, pernicious anemia, infantile scurvy, thyroid feeding, antitoxin and milk sterilization. The author's recommendations are wise and conservative, and will have that weight and authority which his long and useful life so well entitles him to expect.

The book fills a long felt want, and must be read to be appreciated. The publishers have spared no pains to produce a book with faultless typography.

PRINCIPLES OF SURGERY. By N. SENN, M. D., PH.D., LL. D., Professor of Practice of Surgery and Clinical Surgery in Rush Medical College, Chicago: Professor of Surgery in the Chicago Polyclinic; Attending Surgeon to the Presbyterian Hospital; Surgeon-in-Chief to St. Joseph's Hospital; Ex-President American Surgical Association, etc., etc. Second Edition, Thoroughly Revised. Illustrated with 178 Wood Engravings and Five (5) Colored Plates. Royal Octavo. Pages xvi, 656 Extra Cloth, $4.50 net; Sheep or Half-Russia, $5.50 net. Philadelphia: The F. A. Davis Co., Publishers, 1914 and 1916 Cherry Street.

This book is essentially a record of the author's personal experience and of his own methods of treatment, and, as such, is most interesting and nstructive. A surgeon of the experience of Senn, and with his abundant opportunities for work, must necessarily have developed clear

and precise ideas on the subjects which he here discusses, and we gladly welcome this masterly text-book as a valuable adjunct to our surgical literature. Writers on this subject too frequently encumber their pages with the description of so many different methods of performing any particular operation as to thoroughly bewilder the student, and it is certainly in many ways an advantage to find that this puzzling practice has not been followed here.

A modern work on the principles of surgery in the English language has become a generally and well recognized necessity. The recent rapid advancement in the etiology and pathology of surgical diseases necessitate new work. This work is not only replete with valuable practical information but also in those parts relating to the matter treating of the fundomental principles of the art and science of surgery it is exceptionally fine, it admirably serves the purpose of a systematic treatise on the Causation, pathology, diognosis, prognosis, and treatment of the injuries and affections which the surgeon is most frequently call upon to treat.

This is the second edition of this valuable work, and a great deal of new material has been added which enlarges very considerably the size and scope of the work. This edition contains over fifty new illustrations many of which are original. Technique of a number of operations is described and illustrated thus demonstrating, from a practical standpoint, the value of a thorough knowledge of the complicated reparative processes in the treatment of injuries and disease by surgical intervention This work contains about 650 pages and is handsomely printed, with good binding and good paper.

A Manual of the Practice of Medicine. By George R. Lockwood, M. D., Professor of Practice in the Women's Medical College of the New York Infirmary. With 75 illustrations in the text and 22 full page colored plates. Philadelphia: W. B. Saunders, 925 Walnut Street. Price $2.50 net. 1896.

This volume adds another to the popular "Aid Series of Manuals" published by Mr. Saunders.

This book contains nearly one thousand pages, and presents the essential facts and principles of the practice of medicine in a concise and available form. The author states that in the arrangement of the subject-matter the admirable classification of Osler has been adopted with but a few unimportant modifications. It will be found to be most useful to the medical student and practitioner who have not the time and often the means to consult and purchase larger works. The first chapter in the book is devoted to the important and every day disease of Typhoid Fever. Forty-six pages is given to this disease, and in these pages all the important and essential points in reference to this disease are given. Other diseases of equal importance are discussed with equal length and simplicity. The work contains a good many illustrations which are good. It is a concise, clear and readable presentation of the subject.

THE YEAR-BOOK OF TREATMENT FOR 1896. A Critical Review for Practitioners of Medicine and Surgery. In one 12mo. volume of 476 pages. Cloth, $1.50. Philadelphia: Lea Brothers & Co. 1896.

This is the twelfth year of this valuable work, which comes to hand with unerring regularity. It would be difficult indeed to imagine a book more nearly suited to the every day needs of the medical practitioner or writer than this. The contributors to this volume are among the most prominent and well known writers and teachers of the day, and their articles and opinions will be appreciated by all who are fortunate and wise enough to secure them. It is the very book the busy practitioner needs. He can find any thing pertaining to any subject in a moment's time, and he may rest assured that it is the most modern and reliable views now accepted. It, year by year, keeps him apprised of important advances in all branches of medicine, and presents them in a well condensed and classified form. The reader interested in a special subject can quickly post himself on whatever is new and good in treatment by a perusal of the chapter devoted to it, and the general practitioner can with facility turn to any topic by a glance at the index. Those desiring to read up the literature of any subject can find no more convenient guide than the Selected List of New Books, New Editions and Translations. The volume is exceedingly cheap in proportion to its intrinsic value and serviceableness. The editor is to be complimented, as well as congratulated, on the appearance of this the twelfth edition of his really standard work. The typography and illustrations are respectively good and well selected. To sum up briefly, we can safely recommend the work to the classes to whom it is addressed as a good and safe work.

A MANUAL OF MEDICAL JURISPRUDENCE AND TOXICOLOGY. By HENRY C. CHAPMAN, M. D., Professor of Institutes of Medicine and Medical Jurisprudence in the Jefferson Medical College of Philadelphia; Member of the College of Physicians of Philadelphia; of the Academy of Natural Sciences of Philadelphia; of the Philosophical Society, and of the Zoological Society of Philadelphia. Second Edition. 1896. W. B. Saunders, 913 Walnut Street, Philadelphia. $1.50.

There are certain times in the career of a physician's life to be well posted in medical jurisprudence and toxicology will be of most valuable service to him. To show your ability, your complete self-control, that you are master of the situation, before the public in important cases in court, creates a very high regard and esteem for you as a physician. This book is a compilation of the lectures at Jefferson Medical College. While there are other books more complete, larger and more exhaustive, yet this one for ordinary purposes to the physician, will answer every purpose. This is one of the many good and valuable books sent out by W. B. Saunders. It is well printed on good paper and contains many illustrations which make the book more complete. We commend the work to our readers.

HELPS IN SICKNESS AND TO HEALTH, where to go and what to do. By HENRY C. BURDETT, London: The Scientific Press, Limited, 428 Strand, W. C.

This book is the second edition of the authors two smaller manuals, entitled Helps in Sickness and Helps to Health respectively. The book contains about 500 pages, and is divided into 3 parts. Part I gives with sufficient amplitude, but in the fewest possible words, precise information concerning matters which affect the health and comfort of every class from childhood to old age. Part II. consists of household surgery and a list of appliances used in the treatment of the sick. Hints are given upon many points of nursing and domestic medicine which often cause perplexity and difficulty. Part III. will prove of great assistance to the suffering poor who attend Hospitals, as well as to those who desire to send patients to those Institutions. In this chapter is included the name of every institution in England and Wales founded for the relief of sickness and infirmity of every kind, the terms of entrance, and the hours of attendance and admission. This is a useful book for all classes of the community.

HUMAN PHYSIOLOGY; ANALYSIS AND DIGEST. For the use of Medical Students and Practitioners. By JOHN P. SCHMITZ, M, D. Published by the Author, 709-711 Twenty-first Street, San Francisco, Cal.

The science of physiology presents a well-nigh inexhaustible field of investigation, requiring careful study and deep thought. There are many works on Physiology, such as Landois, Dalton, Yeo, and others, all good, but this work demonstrates that there are many points which even now require further elucidation. All the more important points of physiological interest have been set forth in a brief yet clear and sufficiently extensive manner. The text is illustrated with many original diagrams. Whenever advisable sufficient anatomy is given to place the subjects in a clear light before the reader. The reader's attention will naturally be drawn to the *primary causes* of respiration and circulation, the origin of the acid of gastric juice, sensations, the cause of capillary circulation, functions of nervous centres, mucous membranes, and albuminoids as set forth in this work. A glossary containing over 1,000 technical medical terms, properly defined, has been appended, so that every educated person can understandingly read the book without the assistance of Latin and medical dictionaries. The book also contains an exhaustive index. It is a good work.

DR. KINGS MEDICAL PRESCRIPTIONS. By JOHN H. KING, M. D. Second Edition. New York: Bailey & Fairchild Company, 1896.

This is a good book for every physician to have on his office table. It contains the favorite formulas of the most eminent medical authorities, collected from published writings. In very plain language the author expresses the conditions of life and health, setting forth the causes of diseases and invoking the curative agencies, which a long experience has

enabled the most successful physicians to use in relieving the infirmities and the diseases of the human family. The style and the make-up of the book is good.

An Introduction to Human Physiology. By Augustus D. Waller, M. D., F. R. S., Lecturer on Physiology at St. Mary's Medical School. London: Longmans, Green & Co.

It is stated in the preface that Physiology does not consist in a knowledge of recondite phenomena, of difficult names, and of complicated instruments, but consists in the living mental picture of what the great organs below a man's skin are like, what they are doing, how they can be examined, what happens when they are not working properly, how their actions hang together, how they may be influenced for good and for evil. The first eight pages of this work is devoted to an introduction. After this the usual course of all physiologists is followed: the subjects of the blood, circulation, respiration, digestion, etc., etc. At the close of the work is found a good appendix and bibliography. The book has been arranged in such a manner that a first year student is shown what he must study, and the second year student likewise. This is a decided advantage. The work contains over 625 pages, and is well published.

The Insane and the Law. A Plain Guide for Medical Men, Solicitors and Others. By George Pitt Lewis, Esq., S. C. R. Percy Smith, Esq., M. D., H. R. C. P., and J. A. Hawke, Esq., B. A. London: J. & A. Churchill, 11 New Burlington Street.

Medical and Legal practitioners are alike liable at any moment to be suddenly asked to advise upon questions arising out of the mental afflictions of a patient or client. For the correct solution of such questions, some little knowledge of the practice of the sister profession is required equally by the medical man and the lawyer. We certainly need some statement of the law as to the insane, written as far as possible from the point of view of both professions. The following pages supply this want.

This work is intended to include only such subjects as are kindred both to law and to medicine, or in a word, to treat of the *personal position* only of the insane. Scarcely could a book have been written that is more to the point than the present one. It deals with facts that are daily companions to the physician. It is a very valuable book and one that every physician as well as lawyer should have. It contains nearly 500 pages.

Transactions of the National Eclectic Medical Association of the United States of America for the Years 1894-'95. Reports, Papers and Essays. Volume XXII. 358 pages. Published in behalf of the Association. Orange, N. J.: The Chronicle Press.

These transactions are put up in elegant book form, and contain many valuable and readable papers, reports, etc., etc.

MISKEL, a Novel. By L. M. PHILLIPA, M. D., of Penn Yan, New York. Advance copy of No. 2 of the Doctor's Story Series to be issued March 1st, in paper. Pp. 266. Price, 50 cents Baily & Fairchild Co., New York.

This book contains 266 pages, and is one of the most interesting and enjoyable novels we have ever read. The tale is well told.

Literary Notes.

The anuary issue of Littell's Living Age contained many papers of more than usual interest and value. Among others may be mentioned "Lord Salisbury," by Augustin Filon; 'Matthew Arnold in his Letters," by Alfred Austin; "Kashmir," by Sir Lepel Griffin; "The Air Car, or Man-Lifting Kite," by Lieut. B. Baden Powell; "Corea and the Siberian Railway"; "Muscat" by J. Theodore Bent; "In the Wild West of China," by Alicia Bewicke Little. "1920," from the Contemporary Review, is a thoughtful forcast of the future growth and importance in the world of the Anglican race, and furnishes much food for thought.

Other articles worthy of prominent notice are "The Peasant Life of South Russia," from Blackwood; "Purcell and the Making of Musical England," by Frederick J. Crowest; "William Blake," by Alfred T. Story; "Fighting Thurlow, his Foes and Friends," by W. P. Courtney; "The Lost Ambassador," by Margaret Howitt; "Recollections of Thomas Carlyle;" with many others of scarcely less value.

Fiction is well represented by short stories from the pens of M. B. Hardie, John Habberton, I. Hooper, etc. A page of the best current poetry accompanies each number.

The above partial table of the one month's issues witness to the fact that the recent reduction in price from $8.00 to $6.00 does not mean any lowering of the value, or any falling off from the high standing this magazine has hitherto maintained. The busy men and women of today, who demand the best that the literary field can supply, will find The Living Age as fresh, timely, and indispensable as ever.

Littell & Co., Boston, are the publishers.

APPLETONS' POPULAR SCIENCE MONTHLY FOR FEBRUARY, 1896.—Well-sustained excellence is the keynote of Appletons' Popular Science Monthly for February. In the installment of his Principles of Taxation in this number David A. Wells describes the tax systems of China and Japan and shows that taxation has received scant attention in history or literature, Two articles by Herbert Spencer appear this month; one in his series on Professional Institutions, tracing the origin of the Sculptor, the other being a reply to objections raised by the Marquis of Salisbury against the doctrine of evolution. Prof. H. C. Bolton concludes his account of The Smithsonian Institution with a description of its cur-

rent activities, illustrated with views and portraits. Under the title "The Study of Inheritance," Prof. W. K. Brooks contributes the first part of an examination of the doctrine set forth by Francis Galton, taking issue with Mr. Galton on some points. Other illustrated articles are Gathering Naval Stores, in which the mode of obtaining turpentine, rosin, etc., is told by Lee J. Vance, and Natural Features of Venezuela, a timely descriptive article by Frederik A. Fernald. As illustrated also, though not in a high style of art, we must count Prof. Sully's examination of the drawings of children and savages, taken from advance sheets of his forthcoming book, Studies of Childhood, much of which has appeared in the Monthly, Dr. Charles C. Abbott contributes some of his observations as to The Effect of Prolonged Drought upon Animal Life, Edmund Noble discusses Imitation among Atoms and Organisms, Prof. William R. Newbold adds a chapter on Disordination and Incoordination to his series on Suggestibility and Kindred Phenomena, and Dr. Nathan Oppenheim advocates measures to prevent the multiplication of criminals. The subject of the usual biographical Sketch and Portrait is this month a man prominent in affairs as well as in scientific thought, Hon. Andrew Dickson White, first President of Cornell, ex-minister to Germany and to Russia, and now a member of the Venesuelan boundary commission.

New York: D. Appleton & Company. Fifty cents a number, $5 a year.

The contribution in the February Atlantic which will attract perhaps the widest attention is an able paper entitled The Presidency and Mr. Reed. It is a thoughtful presentation of the requirements of the presidential office and a discussion of Mr. Reed's fitness for it. It is the first of a promised series upon the issues and some of the personalities of the forthcoming campaign.

Another feature of importance in this issue is Glasses, a complete story, by Henry James. The central idea of this story is most unique, and affords Mr. James an unusual opportunity to exercise his talents as a story-teller.

Mrs. Rose Hawthorne Lathrop contributes some recollections of Hawthorne, covering the period of his English consulate.

The second of Mrs. Catherwood's studies in provincial France is entitled A Little Domestic, and is a charming picture of peasant life. The second installment of F. J. Stimson's Pirate Gold is full of dramatic interest.

H. Sidney Everett contributes a paper on Unclaimed Estate. He gives minute and most interesting information in regard to the large European estates which are supposed to be awaiting American claimants. Mr. Everett's long diplomatic career has afforded him every opportunity of securing inside information.

Further contributions by Gilbert Parker, Bradford Torrey, Henry D. Sedwick, Jr., and others, exhaustive book reviews, comment on new Books, and the Contributors' Club, complete this readable issue.

Houghton, Mifflin & Co., Boston.

The complete novel in the February issue of Lippincott's is "Groundswells," by the well-known writer, Mrs. Jeannette H. Walworth. It is a tale of rather unusual length (for the Magazine), readable, lively, and 'up-to-date." The scene is in New York city, and the heroine is, or tries to be, a New Woman.

"Fifteen," by Marjorie Richardson, is the tale of a highminded cash-boy, supposed to be told by one of his comrades in the dry-goods store.

Dr. Harvey B. Bashore gives an interesting epitome of the furthest researches of geology in a rapid sketch of "The First Days of the World." "The Aerial Monasteries of Greece" are described by Charles Robinson.

James Knapp Reeve writes of "What Men Drink." E. S. F. gives some account of "Domestic Service on the Pacific Slope" and the difficulties thereof.

'The Child and his Fictions" is a pleasant and suggestive paper by Elizabeth Ferguson Seat. Frederic M. Bird points out certain "Paralyzers of Style," some of which are intended to have a precisely opposite effect, while some are the result of mere carelessness.

The poetry of the number is by Joseph Wharton, Charles G. D. Roberts, and Clinton Scollard.

P. Blakiston, Son & Co., of Philadelphia, announce a book on "Appendicitis," by John B. Deaver, M. D.; Assistant Professor of Applied Anatomy, University of Pennsylvania; Assistant Surgeon to the German Hospital, etc, The book will be arranged in a practical and systematic manner. The History, Etiology, Symptoms, Diagnosis, Operative Treatment, Prognosis, and Complications of this disease will be given in the order named. It will contain about forty illustrations of methods of procedure in operating, and typical pathological conditions of the Appendix, the latter being printed in colors.

The Review of Reviews for February contains an article which, in the compass of two pages, makes perhaps the most telling and effective exposure of the recent Turkish massacres that has yet been attempted in the English language. The article is based upon full accounts of the massacres, written on the ground by trustworthy and intelligent persons French, English, American, Turk, Kurd, and Armenian—who were eye-witnesses of the terrible scenes. The article estimates the number of killed in the massacres thus far at 50,000, the property destroyed at $40,000,000 and the number of starving survivors at 350,000.

ANNOUNCEMENT.—Dont's for Consumptives, or the Scientific Management of Pulmonary Tuberculosis, is the title of a book which, under the authorship of Dr. Charles Wilson Ingraham, will soon (about Feb. 10th) be issued by the Medical Reporter Publishing Co., of Rochester, N. Y.

The complete work of 35 chapters is devoted exclusively to the general management of Pulmonary Invalids, no reference whatever being made to drug treatments.

The object of the author is to supply the Physician with a practical work, and at the same time, by eliminating technical terms, reduce the text within the easy comprehension of the intelligent patient. The author claims that "a good understanding of his condition is the best remedy for the Consumptive." With this book in the hands of his patient the physician will be relieved of a multitude of details which attach to the successful management of such cases. Special attention has been given those chapters pertaining to the destruction of tubercular infection.

The book will be printed on 72-pound antique book paper, bound in cloth (imitation morocco), with title in gold leaf. Price, $1.75.

"The Non-Heredity of Inebriety," by Leslie E. Keeley, M. D., LL. D , is the title of a timely volume now in the press of S. C. Griggs & Co. The author endeavors to show that inebriety is a disease, and that it, as well as other diseases, is not hereditary. The work is said to differ from others on inebriety in its application of the doctrines of the variation of species and natural selection to cell life, thus showing the causes and nature of disease, its modern scientific treatment, and the philosophy of immunity to disease in general, and inebriety in particular—all in language within the comprehension of the general reader. The inter national reputation of the author as an original investigator in matters pretaining to inebriety should make this work of more than ordinary value to scientists, the medical profession, and to all who are, by legislation or otherwise, endeavoring to correct the evils of intemperance.

NEW YORK, February 1, 1896.

DEAR SIR:

The undersigned corporation begs to inform you that it has this day acquired the business heretofore carried on under the firm name,

SCHULZE–BERGE & KOECHL.

All the business connections both foreign and domestic of said firm have been retained by the undersigned, who have also assumed all the assets and liabilities of its predecessors.

Soliciting your favorable consideration, we are

Yours truly,

VICTOR KOECHL & Co.

Etiology of Puerperal Eclampsia.

Dr. Poe, of Nashville, Tenn., says (Transactions Nashville Academy of Medicine) Puerperal Eclampsia is the manifestation of an intoxication of the economy, principally due to the passage directly into the general systemic circulation of the portal venous blood with its peptones, ptomaines, or whatever the offending material may be, that is exceedingly toxic, unless it first passes through the liver before entering the general circulation, this portal blood being thus perverted from its natural channel through the liver, into the general systemic veins through its branches of communication with the portal, mechanically by the gravid uterus exercising direct pressure on the portal vein and branches, obstructing and increasing the tension of that system of veins, *uterine obstruction* leading to *peptonæmia*. Increased lacteal absorption accounting for a part of the peptonæmia, to which the leucocytosis may also be attributed.

In portal obstruction due to hepatic cirrhosis, an allied condition ; we have convulsions occurring spontaneously, and the condition may be mistaken for uræmia, the toxic symptoms of *icterus gravis* are due to peptonæmia, as are also those developing in cirrhotic obstruction, either of which may be complicated with the cholæmia that may be present in such cases.

All circumstances that increase the tension are found to increase liability of the development of the disease, thus it is more frequent in primiparæ, the older the primipara the greater the danger, and in multiple pregnancies.

That pressure is exercised on the portal system is proven by the occurrence of hæmorrhoids during pregnancy. To the peptonæmia in many cases is added the excretion proper of the emunctories, and especially the ingredients of the urinary excretion, the kidneys being disabled by the elimination or attempted elimination of the noxious materials above accounted for in the blood: thus it is, that the nephritis and consequent *uræmia* are accounted for that are present in many cases.

By many it is held that the most potent factor in the production of interstitial nephritis is interference of liver function leading to lithæmia.

The digestive organs may, by this mechanical condition, be so influenced as to seriously impair its functions, their circulation being necessarily impaired, the gastric, pancreatic, and intestinal fluids may be altered in quantity or quality or both, and digestion being thereby improperly performed, adding to the virulence of the normally poisonous peptones that are passing into the general circulation in an unnatural way and hence also the *anæmia*. The function of the spleen being likewise impaired, accounting for the reduced number of red blood corpuscles.

Finally: *Peptonaemia, uraemia, and anaemia* may either of them, and especially the first two, or all three combined induce such a condition of

the nervous system that the irritation of the uterus due to its powerful contractions or other causes during labor, or the spontaneous contractions during pregnancy or the child-bed period, are sufficient to eventuate the convulsions. It may be possible that the convulsions are, in rare instances, due to peripheral irritation alone, but this must be exceedingly rare.

Prevention and Treatment of Pulmonary Tuberculosis.

Dr. Greenley, of Kentucky, read a paper with the above title at the late meeting of the Kentucky State Medical Society. The doctor believes that in a large majority of cases of this disease, we have, in the outset, a longer or shorter stage of general impaired health, due to indigestion and lack of proper assimilation; and is of the opinion that by proper management the development of the disease might in the majority of cases be prevented.

The means he proposes consists, mainly, in proper dieting, exercise and healthy environment. Of course, in many instances, digestion must be aided by tonics and such agents as may be indicated in given cases. He recommends milk and beefsteak as the most nutritious and digestible of the proteid varieties of diet.

The doctor then speaks of several plans lately recommended for the management of consumption. Dr. Carasso, of Genoa, has lately published his plan of treatment, and claims great success. He uses a piece of linen cloth, ten centimeters square, which is folded to make a pad two by five centimeters. By means of tapes this pad is secured in contact with the nostrils. The tapes may be tied around the head about the ears, or to the frames of a pair of spectacles. The pad is to be worn day and night, and only to be removed at meal times. In cases of patients with outdoor occupations, who object to wearing this inhaler for cosmetic reasons, a quill, tooth pick, or cigarette holder, may be stuffed with cotton, and after saturation with the mint essence may be used as a mouth inhaler.

The pad is to be moistened with five or six drops of peppermint essence four or five times a day. The nostrils are to be greased with vaseline for the first few days to prevent irritation. The patient is instructed to take eight or ten deep inspirations with closed mouth, retaining the air as long as possible. After ten or fifteen minutes rest this procedure is repeated, and so on through the day.

In case difficulty is experienced in keeping the pads in position at night, the bed pillows may be impregnated with ten or fifteen drops of the mint essence.

The following mixture is given internally:

Creosote, pure (beechwood)	8.00
Alcohol	550.00
Glycerine	250.00
Chloroform	20.00
Essence Mentha	8.00

Of this mixture take a teaspoonful every three hours in a glass half-full of water.

The nutrition is favored by the method of over-feeding.

Carasso reports 44 cases treated on this plan, of which 38 recovered and six died. Some of these cases were advanced in the third stage of the disease.

The rapid improvement of the cases reported under this treatment is astonishing. All the cases of primary disease recovered, and of those who died, four succumbed to secondary tuberculosis. The average time of treatment was 60 days.

After the doctor had alluded to several other plans of treatment of this disease, as those of Drs. Von Ruck, Marston and Parsons, he comes to speak of the use of "Antiphthisin," or immunized blood serum, as practiced by Dr. Paquin, of St. Louis, and gives the doctor's report of some 24 cases, being the first series of cases he has treated. These cases were in the St. Louis Hospital and County Almshouse, and notwithstanding their comparative unhealthy environments, they all greatly improved. He commenced the treatment about the first of December, and made his report February 1st, a period of about eight weeks. In this time all gained in weight except two, and these improved in every other way. Their cough and expectoration diminished, fever abated, appetite improved, and the breathing capacity increased.

As some of these patients were brought to the hospital on stretchers, it seems almost like a miracle to think of their wonderful improvement in such a short time. Dr. P. procures his "Antiphthisin" from the horse by injecting the toxin of tubercular bacilli.

Dr. Paquin made a further report of his treatment in a paper read at the late meeting of the Am. Med. Association, in which he confirms the great success as reported in his first paper. If the reports of Carasso and Paquin should, by further trial, prove to be based on correct curative premises, a long step in advance will have been made in the treatment of the greatest scourge of the human race. But owing to the fact that so many vaunted remedies have, from time to time, been before the profession within the last decade, and proved to be worthless, it requires a great deal of credulity on our part to trust any thing new in the treatment of this disease until thoroughly tested.

Sanmetto.

I have been using Sanmetto for several years, and find it invaluable in nearly all kidney and bladder troubles, especially those accompanied by irritation or inflammation of the mucous membranes, as well as in sexual decay and pre senility.

Addison, Pa. Wm. F. Mitchell, M. D.

A New and Ideal Styptic; A New Compound of Antipyrine and Tannic Acid.

By Roswell Park, A. M., M. D., of Buffalo, N. Y. Prof. of Surgery, University of Buffalo.

In the Medical News of December 15 and 22, 1894, I rehearsed some of my experiences with Antipyrine as a styptic in surgical practice, stating that I had for years used a 5 per cent. solution as a spray, sterilizing the water before making the solution. This I had no hesitation in spraying upon any surface, peritioneal, cerebral, or other, from which parenchymatous oozing was taking place to an extent complicating the operation or jeopardizing the success of an ideal dressing. This therapeutic note attracts at least sufficient attention to lead to its pretty general use by surgeons in various parts of the country, from many of whom I have heard commendatory remarks, and from none of whom I have ever heard of disappointment in its use. The present note is to corroborate the favorable esteem in which I have long held this procedure, and to state that I have since resorted to it more widely and more generally for styptic purposes. Thus, I have no hesitation in using it in the urethra, or even in the bladder, in cases of hematuria proceding from either of these locations. Even in the eye it may be used without fear, preceding its use by that of weak solution of cocain, though in this location the Antipyrine-solutions need not be made so strong. On the other hand, it may be used in much larger per centage when the the 5 per cent. solution fails to accomplish the purpose; even when small vessels spurt, compression for a few moments with iodoform-gauze or acetanilid-gauze topped in this solution will often be effective.

As every physician will realize, there occur cases of bleeding—for instance, from the nasal cavity or from divided bone—in which even these solutions will be ineffective. My present object is to call attention to the combination of Antipyrine and Tannic Acid, in solution, by which there is precipitated and intensely agglutinative and cohesive substance of to me unknown chemic composition, which offers the most ideal styptic for certain purposes that I ever dreamed of. This combination I hit upon by accident, and first resorted to in a case of apparently intractable hemorrhage from removal of adenoid tissue in the vault of the pharynx, in which I was called in consultation by my colleague, Dr. Hinkel. He happened to have at hand a bottle of alcoholic solution of tannin, while I was provided with Antipyrine in powder. The case being emergent I suggested the combination of the two styptics, and added the dry powder to the solution. To our surprise, there was formed at once a gummy mass, at first flocculent, which quickly cohered, the result being a combination, the stickiness and adhesiveness of which quite astonished

us. A small sponge dipped into the fluid containing this material in suspension was inserted into the postnasal space, and hemorrhage instantly was checked, not to again recur.

I have since experimented with these materials, and have found that they may be united in almost any proportion with the formation of the gummy mass, and would suggest that the substances be mixed in proportion to the emergency of the case, and to the desire for little or much of the resuliing compound. It is possible by adding strong solutions, or of pouring the powder of one into the solution of the other, to precipitate so much of the agglutinative composition as to make a gum that may be placed about the margin of the bleeding bone—for instance, the operations upon the cranium. Or a small piece of sponge or cotton sopped in this material may be forced into a tooth-socket, or in various other ways its use may be made to result in benefit and satisfaction. There is but one attendant difficulty, that it is so remarkably cohesive that when the time comes for detachment or separation of the tampon it is difficult to remove it. It may even be necessary to wait for sufficient time for the formation of granulations and separation by natural processes.

I strongly commend to surgeons experimentations with these solutions, and their own determination as to the strength in which it may be best to use them.

Chronic Seminal Vesiculitis with Hemorrhage.

Dr. S. P. Collings, of Hot Springs, Ark., read a paper on this subject before the Mississippi Valley Medical Association at Detroit, Sept. 5th. He stated that apparently there had been little known of the pathological conditions of the seminal vesicles until within recent years.

The usual cause of this trouble is the extension of gonorrhœal inflammation from the prostatic urethra through the ejaculatory duct into the vesicle itself. At least there is usually a history of a former gonorrhæa with a chronic deep urethral trouble remaining. The urethra in these cases will be found, as a rule, to be more or less distorted and contracted with organic stricture. This results from the chronic inflammatory trouble, and serves at the same time to perpetuate the inflammation. Especially is this true when the membranous urethra is strictured; however, the entire urethra posterior to a stricture in any part of the canal is more or less irritable and inflamed.

The cause of most of the subacute and chronic forms is very similar symptomatically, differing principally in degree of intensity of some one of their manifestations. An exception to this, however, says the author is an accompanying hemorrhage. This occurs only rarely, but may be more or less constant, continuing over a considerable period when it does occur. The most important symptom is the disturbance of the sexual

function. In the majority of cases sexual desire is decreased, and in some may even disappear entirely.

The character and appearance of the seminal fluid is more or less changed. Its consistency is so increased at times that it is gelatinous, which precludes the possibility of the weakened vesicle walls from entirely expelling their contents, and an overdistention results.

The diagnosis of chronic seminal vesiculitis would be difficult to make were we to depend entirely upon symptoms in reaching a conclusion. They are vague and at times misleading, except the appearance of blood in the semen, which, if thoroughly mixed with it, would determine a diseased condition of one or both vesicles at once.

The author then described Dr. Fuller's method of examination, who directed his patient to stand with the feet together and the body bent at right angles, but personally he preferred to have the patient lie on a hard table, with the thighs flexed to an acute angle, as the abdominal muscles could be better controlled and counter pressure more effectually made. The method of expressing the vesicular contents into the urethra for the purpose of examination or treatment was also given.

The author reported two cases, discussed the treatment as applied to them as well as that generally used in the chronic forms. He also referred to Dr. Wiener's rectal psychrophore as a valuable adjunct in the treatment of these cases, and especially the more acute forms.

In conclusion he said that if an inflammation of the vesicle occurs in one whose urethra is strictured, cure the stricture before you can hope for permanent results in your vesicle treatment.

To Plug the Post Nares.

A very simple plan for plugging the nose is to take a piece of thin cloth about six inches square and by means of a stout probe pass it into the bleeding nostril. It should be pushed in "umbrella" fashion, in a downward direction until the probe reaches the posterior wall of the pharynx. Now, push the probe upward and sidewise so as to make a pouch of the cloth back of the nose. Then pack small pledgets of absorbent cotton into the sack thus made until a sufficient quantity has been put in place to fill the posterior nasal opening. Next, press backward on this cotton with the probe and pull the mouth of the sack forward, thus drawing the "sack" into the nasal space. The sack is now to be filled with pledgets of cotton, care being used to pack them closely. When the nose is filled, the mouth of the sack can be closed by tieing, and trimmed off just outside the nostril. It is good practice to soak the cotton in some astringent solution. The removal of the tampon is easily effected by opening the sack and removing the cotton piece by piece, by means of the forceps.

Ophthalmia Neonatorum.

Dr. R. F. Miller, of Sherman, Texas, at the December meeting of the North Texas Medical Association, read a paper on this subject, calling attention to the frequency of this disease among the infants of every grade of society. In proof of his statement that gonorrhœal cases infected at parturition showed themselves before the fifth day, he cited the tabulated report of forty cases treated at the New York Eye and Ear Infirmary during the winter of 1894 and '95.

A bacteriological examination was made in each case and thirty cases showed the gonococcus of Neisser. Those in which the discharge appeared on or before the fourth day all gave the gonococci, while those showing no discharge till from the fifth to the eighth day gave no gonococci. In the line of treatment he advocated nothing new, believing that the method consisting of cold applications, frequent cleansing and daily brushing of the palpebral conjunctiva with 1 per cent. or 2 per cent. Silver Nitrate solution the most rational and efficient treatment yet proposed.

He called attention to the eye speculum devised by Dr. Peter Callan, of the New York Post Graduate School, as especially suitable for use in treating these cases. He insisted that treatment should not be discontinued too soon, for one lurking gonococcus might cause a return of the whole trouble.

Dr. Miller sought to enthuse his audience on the subject of prophylaxis, favoring the method advocated and conclusively exemplified in the lying in-Asylum at Leipsig, Germany, by Crede. There the percentage of Ophthalmolmia Neonatorum was reduced from 10 per cent. to 0.1 per cent. by the adoption and execution of this method. It having been found that one-third of all the blind in Germany are due to Ophthalmia Neonatorum, he proposed that at least one-tenth of all living blind are due to the same cause. There being more than 300,000 blind in Europe Crede's method would lessen that number 30,000. A like proportion exists in America and society would thus receive an incalculable benefit.

At a meeting of the American Pediatric Society held at Hot Springs, Va., May 28, 1895, Dr. L. Emmett Holt, of New York, presented a specimen showing Malformation of the Heart, Pulmonary Stenosis, Deficient Ventricular Septum, Open Ductus Arteriosus, Aorta arising from both Ventricles. This specimen was removed from a female child, which came under observation three weeks before its death, when its weight was 8½ lbs.; it had been cyanotic since birth, had never had convulsions and showed all the symptoms of extreme marasmus, from which it died.

The physical examination showed feeble heart sounds—the first and second being very similar both in character and intensity. It was impossible to locate the apex beat. The pulse was weak, the cyanosis intense

and constant, and increased by crying. There was no clubbing of the fingers. The autopsy showed nothing abnormal except the heart and lungs; the latter showed marked congestion but no atelectasis. The aorta was 5/8 of an inch in diameter and arose from both ventricles—principally from the right, but directly over the ventricular septum. The pulmonary artery was so small as to admit only a small probe, and the passage of blood through it during life was doubtful. The ductus arteriosus was open, the diameter being 1½ inch. The apex of the heart was broad, the right ventricle was much larger than the left and its wall twice as thick; the right auricle was much enlarged and the left small. The ventricular septum was deficient at its upper portion—the opening being ½ inch in diameter. The auricular septum was normal, the foramen ovale was closed and the pulmonary veins were very small.

The systemic circulation was carried on chiefly by the right ventricle, and as very little blood could reach the lungs through the pulmonary artery by way of the ductus arteriosus, the chief supply to the lungs was probably through the bronchial arteries.

It is a feature of considerable interest in this case that no murmur was heard during life.

A Most Persistent Case of Vomiting in Pregnancy Controlled by a Simple Stimulant Tonic.

By W. R. Endris, M. D., St. Louis.

This case is submitted, as the writer is of the opinion it will prove of interest to the members of the medical profession, any of whom have met with such cases, and will appreciate my desperate frame of mind, when I say I had concluded that the only way to save my patient would be to produce an abortion.

Mrs. C—age 26, married 4 years, and this was the first offense, (primapara). When called to the house, my first visit, I found her completely exhausted from the effects of a prolonged attack of nausea.

Upon questioning her I found it had been 3½ months since her last menses. She had been having attacks of nausea for three weeks. I found her pulse very weak, and she complained of being so dizzy. Nothing could be retained on her stomach; even crushed ice would be returned after melting within the stomach. The usual list of remedies, such as Bromides, Chloral, Pepsin, Lactaptine, Ingluvin, etc., gave no relief. Hypodermics of Morphine had no effect, and even slight dilation and application of cocaine to the os-uteri was tried without success. It seemed only a question of a few days when she would die of exhaustion from starvation.

"A drowning horse will grasp at a straw," and I believe in my desperation I tried everything. One day a sample bottle of Zumo-Anana

(Pine Apple Digestive Wine) was left at my office. I did not think it would do any good, but knew it could do no harm. I gave her a dose of it very cold, and was agreeably surprised to find that it remained on the stomach for fully 20 minutes. I tried increasing the size of the dose, so I ordered her to take double the dose, pour in a goblet filled with crushed ice and drink slowly.

I was pleased with the results; as it remained, and my patient in a short time was asleep. Since then (a fortnight), she had been taking this Pine Apple Digestive Wine regularly before eating, and she has experienced but one or two spells of vomiting.

The explanation is; that a digestive stimulant tonic was needed.

The reflex action of the stimulant tonic effects of the Zumo-Anana being greater than the reflex action of the uterus, causing the nausea.

I trust it will be a long time before I have another experience like the foregoing.

A prominent physician writes as follows:

MESSRS. MCKESSON & ROBBINS:

Gentlemen:—I have three cases in which I have been experimenting with Tartarlithine, and the same in combination with sulphur. I am surprised to find what appears to be the pronounced value of the sulphur combination. All of the cases present arthritic symptoms, and have been markedly benefitted by the tartarlithine treatment after the failure of other treatment extending over long periods. One case, a man who had for eighteen months suffered from a lumbago which nearly disabled him, is now so much improved after using 100 tablets of tartarlithine with sulphur that he considers himself well. Certainly his disorder is under thorough control.

I saw somewhere in a medical journal a rather romantic description of a preparation which had become very popular in England under the name of Chelsea Pensioner. It was a secret preparation for a time, but achieved such notoriety for its value in the treatment of gouty joint affections, that some charitably disposed person paid a large sum for the formula and then made it public for the benefit of suffering humanity. The preparation was composed of cream of tartar, sulphur and powdered ginger. If the efficacy of Chelsea Pensioner was as stated, then the combination of tartarlithine and sulphur should be much more potent in the same lines. The foregoing may be quite familiar to you, but I send it in any event and regret that I did not make a note of the journal in which the account appeared. I shall be glad if you will send me another supply of both the tartarlithine and its sulphur combination, as I have used all I had and desire to continue my experimental treatment of the cases to which I have alluded.

A Contribution to the Therapeutics of Diabetes.

By J. Blake White, M. D., Physician to the City Hospital, New York.

While the constitutional conditions on which depend the three usually recognized diatheses—the lithic, oxalic and phosphatic—have been somewhat determined, that of the diabetic has never yet been clearly defined.

The lithic occurs in persons of florid appearance and robust habit "bon vivants"—who suffer from irritable gastric dyspepsias, and is also associated with a gouty or rheumatic tendency or with some forms of chronic skin disease, especially Psoriasis.

The oxalic is characterized by the formation of oxylate of lime in the urine, and appears in individuals of defective assimilation dependent on exhausted nervous energy, arising from overwork, mental strain or venereal excesses.

The phosphatic is seen chiefly in the aged, or in the prematurely old of anæmic condition and shattered constitution.

In the largest proportion of cases where the diabetic diatheses occurs, no exciting cause can be assigned. A great degree of vagueness obtains concerning its origin; but among those causes alleged to have given rise to diabetes are numbered: shock, cerebral disease, exposure to cold, drinking cold water while in a heated state, mental emotion, blows on the face or thorax, sexual abuse, and, I might add, abuse of light causing retinal shock: all showing implication of some part of the great sympathetic nervous system, either within the cranium, spinal cord or its peripheral distribution.

I am aware that I give utterance to a novel view when I call attention to the above statement, and declare that my study of the disease especially inclines me to the conviction that diabetes should be classed among the neuroses, and that its varied phenomena result by reflexes from the nervous system just as shock may temporarily arrest the secretion of urine. To my mind the disease obviously arises in the sympathetic chain which controls the secretory function of the kidneys. A wide and tempting field for investigation and discussion is thus opened, which, I regret the limited time at my disposal prevents my entering upon.

Many believe that diabetes depends on some digestive impairment, the intestinal canal being particularly concerned. In this connection it is very interesting to observe that the classic Dickson regarded the disease as a result of "some obscure vice of digestion and assimilation." If it primarily accounted for the presence of sugar in the urine, it would seem as if remedies addressed to a correction of this impairment would promise the best success in treatment. This view of the subject appears to have been taken by many, inasmuch as a review of the therapeutics of

diabetes shows a remarkable leaning to remedies well known to possess a controlling effect on the function of the gastro-intestinal tract.

Though my experience inclines me to favor similar treatment, my interpretation of the effect, however, is that it is realized rather through the nervous system than through any direct local consequence which antiseptics may exert in the digestive canal.

Harley gives us quite a practical view of the subject by verifying two great divisions in diabetes: the first, including cases due to excessive sugar formation; the second, those due to diminished saccharine consumption, The first class of cases he considers most amenable to treatment, the second, especially fatal; on the principle, no doubt, that it is much easier to overcome the processes which result in sugar formation, than to get rid of the accumulation of sugar after it is once generated, and the formative process well established.

Whether or not the impairment which excites excessive saccharine formation originates in the liver, or is superinduced by some other functional disturbance re-acting on the hepatic system, is of little practical importance in the treatment. We must have in view the necessity of withholding in one case material which facilitates sugar manufacture by the liver; and, in the other, the administration of appropriate medicaments to overcome that condition which permits of perverted function.

Remedies which have been found efficacious in some instances, have been such as could hardly be supposed to exercise any direct effect on the liver. Intestinal antiseptics like antipyrine, salol, and peroxide of hydrogen have been advocated as successful remedies. Nicolaier tried salol in seven cases of diabetes and reported that its administration diminished the amount of sugar without dietetic restrictions, which appears to indicate (although he does not attempt to explain it) that while the salol may overcome intestinal fermentation, it nevertheless corrects in some inexplicable way the process of sugar formation.

Professor Bufalini found a strictly albuminious diet far more tolerant when Thymol was administered, the good effect being undoubtedly dependent on the well known antiseptic influence of this drug; but it is not explained that these effects are due to either a direct or a reflex action upon the intestinal nerve filaments. The development of sugar takes place in the stomach itself where it has been found, and it has also been detected in the intestines and in the fæces.

There can be no question of the advantage to be attained by a judicious restriction of diet in assisting the treatment, and I have already laid great stress upon the fact that internal antiseptics play a most important role in the management of this disease. When due to excessive sugar formation the dietary is somewhat modified, as compared with that in cases associated with mal-assimilation. In the latter instance the body must be supplied with foods so easily digested that emaciation is retarded

while, at the same time, the vital powers of the patient are sustained. In such cases therefore, fats in the form of butter, cream and fresh milk should be permitted, and it is sometimes advisable to give cod liver oil, the form of emulsion being best suited to the pancreatic complication of the disease. Liquor Potassae or Soda Carbonate disolved in glycerine help to emulsify the fats and render them more readily absorbed along the intestinal tract.

To combat debility or very great loss of flesh, authorities agree that assimilable forms of saccharine substances should be given, believing that if we supply such nutritive elements when thus demanded, the chances of their assimilation are greatly enhanced and physical improvement proportionally follows; for the depression is supposed to be due not to sugar in the blood so much as to impaired power of its absorption.

Laevulose, the analogue of diabetic sugar, has been recommended by Kulz when indications for an added saccharine diet are present; also in these cases of excessive sugar formation where the subjects manifests physical and mental failure the severe dietary restrictions should give way to a less guarded regimen, permitting brown bread, fats, fruits and green vegetables.

The saline purgative and the alkaline non-purgative waters are serviceable to diabetics; the former acting by reducing saccarine supply in removing from the intestines ingested food before it has time to be absorbed and furnish the liver with material for the manufacture of sugar; the latter act as any alkaline medicament in emulsifying fatty foods and rendering them easy of digestion.

The narcotic and anodyne class of drugs have been more or less used and commended, but no rule can be laid down as to which it is best to use in all cases. When one preparation of the same drug, as opium for instance, will not succeed, another must be substituted.

Codeine, when tolerated, has long been in favor and it is to be preferred to morphia or crude opium because of its less disturbing effec on the digestive functions. It is stated that Croton Chloral in combination with a vegetable narcotic has given surprising results. When it is desired to overcome nerve depression, great benefit may be expected from strychnine, nux vomica, quinine, nitro-glycerine, phosphoric acid and cocaine in various combinations.

I will not attempt to give in detail the numerous remedies which have been from time to time suggested, but I would like to mention the pancreatic preparations tested by Drs. Mackenzie and Neville Wood. These preparations proved, in a general way, somewhat beneficial but they had no effect in lessening the amount of sugar in the urine; they, however, served to modify thirst and reduce the quantity of urine passed.

Dr. Hale White concluded that neither the feeding on fresh pancreas

nor the injecting hypodermically the liquor pancreaticus was of such material benefit as to be a commendable mode of treatment.

From internal antiseptics, however, combined with judicious dietary restrictions I have realized the most beneficial results. The remedy which has most commended itself to me being BENZOSOL or Benzoyl guaiacol which has also been highly extolled by Piathowske in three valuable papers. My own experience with this drug fully justifies its use and corroborates the observations of this distinguished authority. He found that, under this treatment, severe cases were transformed into mild ones, while in some patients the sugar entirely disappeared; the quantity of urine excreted was lessened and the specific gravity lowered. As to its mode of action Piatkowske closes his report of cases treated with the reflection that it is far easier to propound theories than to justify them, and therefore refrain from stating whether or not the effect depends on the remedy's action on the pancreas, liver, blood or the nervous system, which last Marfuri held to be the first stimulated.

Whatever its action and on whatever function exercised, BENZOSOL certainly manifests a most potent influence in controlling elaboration of sugar; and as it is tasteless as well as odorless, and at the same time a safe remedy to employ, it merits a high place among our therapeutic resources.

For the benefit of those who may not be familiar with this preparation I will add that BENZOSOL, from (Benzoyl-ortho-oxyanisol), is a compound of benzoic acid and guaiacol and was first prepared by Dr. Bongartz. When pure it presents a colorless crystalline powder; ordorless and tasteless, and melts at 50° C. The formula is:—

$$C_6H_4 \begin{cases} O\,C\,H_3\ (1) \\ O\,C\,O\,C_6\,H_5\ (2) \end{cases}$$

It is insoluble in water, barely soluble in hot glacial acetic acid, but readily dissolved by chloroform, ether and hot alcohol. In the gastro-intestinal canal, but chiefly in the intestinal portion, BENZOSOL is transformed into guaiacol and benzoic acid. The dose gradually increased from one or more grains to 15 grains daily occasions no disagreeable effects, but it is apt to excite diarrhœa if carried up to one drachm daily. I have been in the habit of prescribing the capsules, commencing with a moderate dose of a grain or two, and gradually increasing it to 10 or 15 grains daily. In addition to lessening the manufacture of sugar, the effects observed have been, increased appetite, improved digestion and assimilation, with a perceptible stimulation of the nerve centres. In four diabetes patients I noted a total absence of sugar in the urine after three months treatment, with proportionate improvement in the general health.

Though a marked benefit is derived from the use of BENZOSOL alone, the best results are to be looked for in cases where a restricted

diet is carefully followed with the additional administration of Carbonate of Lithium and Fowler's Solution in Vichy every morning as recommended by Dujardin-Beaumetz.

It will thus be seen from the foregoing remarks that the use of BENZOSOL in the manner suggested serves the following useful purposes:

It stimulates the nerve centres.

It increases the appetite.

It lowers specific gravity of urine.

It controls the excretion of urine and, lastly, modifies sugar formation, thus lessening the amount excreted.

To What Extent Should Recently Suggested Symptoms of Muscular Exercise Displace Tenotomy in the Treatment of Heterophoria.

Hiram Woods, M. D., (Journal of The American Medical Association, Nov. 2, 1895,) says: Muscular errors, revealed by any of the numerous balance tests, are not always productive of asthenapia. Like refraction errors, they are often comfortably bourne. Therapeusis of Heterophoria depends on its cause. Faulty balance does not always mean that a muscle is too weak, or its opponent too strong. Associated refraction error, innervation and other influences, ocular and systemic, may produce Heterophoria, and surgical interference be harmful.

The author thought that in esophoria, or exophoria *abduction*, or negative convergence, the key to diagnosis. Normally this should not fall below five (5) prism degrees. Eight or ten is its maximum limit. When it is below five and balance test is esophoria, there is strong probability of essential external weakness. When higher than 10, the interni are probably below normal. Adduction—power of the interni to keep an object single at 20 feet distance, in spite of prisms, bases out—the author thought of little use as a test for intrinsic strength of interni. The interni do not work naturally at a point of distance fixation; they have close connection with accommodation, from which the patient must learn to discover convergence, if he is to overcome adducting prisms and yet see the distant object clearly. This power can be easily and speedily increased in several ways, and is sometimes high when balance test is exophoric. This physiologic connection with A. does not exist in abduction.

The methods of muscular exercise considered were Gould's "Hankriepping with Prisms," and Savage's "Rhythmic Exercise." Regarding the former the author though its usefulness was limited to exophoria. It is specially useful in the large class of cases where, with either normal or low exophoric balance at 20 feet, abduction is normal, and adduction low. This condition may be associated with high *nerve* exophoria, and usually, the author thought, with hyperexophoria refraction. The trouble here is an

abnormal relation between A. and C. By Gould's exercise this relation can be readily broken up and a healthy one produced. Again, in exophoria with high abduction and low adduction, the latter can be more slowly increased and asthenopia relieved.

Savage's rhythmic exercise is applicable to all forms of heterophoria of *low degree*. In exophoria the author considered it slower than, and inferior to, Gould's method. It is useful in low esophoria where internal tenotomy indications are not present. Such cases, however, usually do well with adducting prisms, and get relief sooner. Still they are often curable by Rhythmic exercise, and cure is better than spectacles. Again, in low hyperphoria, with a difference in supra- and infra-duction of less than 1° or 1½ prism degrees, the weak muscles can often be strengthened by rhythmic exercise. Prisms, bases up and down, may relieve this condition, but they are not so frequently comfortable as are adducting prisms in similar degrees of esophoria.

A few cases are met where all the muscles are below normal standard in contractile power. Rhythmic exercise is often of great use here.

A New Operation for Congenital Ptosis.

In the New York Medical Journal of Dec. 21st, is a valuable paper by Dr. T. C. Evans, of Louisville, on the above subject. The doctor says in substance:

In the condition known as ptosis the elevator muscle of the upper eyelid, the levator palpebrae, is absent, deficient or disabled. In elevating the lid it holds the tarsus firmly against the globe, and draws the superior border under the orbital arch.

In congenital ptosis this muscle is absent, and as its opposing muscle, the orbicularis, is unrestrained in its action, the upper lid is constantly depressed, narrowing the fissure between the lids to such an extent as to seriously interfere with useful vision.

Various operations have been proposed for the relief of the condition, with varing degrees of success. Dr. Mules was the first to propose the permanent wire suture. I have recently operated on four cases by his method, slightly modified as to the manner of fastening the wire and inserting it in the lower margin of the lid.

My operation is as follows:

An incision three-eighth of an inch long is made in the free margin of the lid, and about a sixteenth of an inch in depth, midway between the outer and inner canthus.

Then a second incision is made above the brow, three-fourths of an inch in length, extending through the skin and occipito-frontalis muscle; now, with a flat needle, having its eye at the point, and carrying about six inches of No. 30 silver wire, penetrate the lid at the inner extremity

of the marginal incision, passing upward between the obicularis and the tarsis, under the brow and coming out at the inner extremity of the incision above the brow.

After withdrawing the needle, leaving the silver wire in place, pass the needle in at the outer marginal incision and bring it out at the outer part of the incision above the brow. Before inserting it, pass the free end of the wire through its eye.

The loop of wire should now be drawn into the marginal incision and sufficient tension exercised to draw the upper lid upward. A perforated shot is placed on the wire ends and when sufficient traction has been used the shot is pressed with plyers.

The incision in the lid margin is closed with a few stitches, likewise the upper. These wire sutures give no pain, and the result is all that could be desired.

Indications for and Against Operating for Strabismus.

Dr. Frank C. Todd, of Fort Worth, Texas, in a paper read before the North Texas Medical Association, called attention to the fact that strabismus was operated upon promiscuously, and without proper preliminary study of each separate case, quoting cases of convergent strabismus, that after operation resulted in divergence, and other cases where tenotomies had brought about no results, good or bad.

These poor results he attributed to two factors, i. e., that attention had not been paid to the refraction of the eyes, or that the operation had been performed upon the wrong muscle.

In regard to the first factor he stated that there were but few cases of squint not caused by hypermetropia and myopia, and explained the reason these errors of refraction caused strabismus in the following words :

It is possible for the normal eye to see objects accurately at every distance, from its far point to its near point. * * * This is brought about by the action of the ciliary muscle. which controls accommodation, producing the amount of convexity of the lens required for different distances, to bring the rays of light to a focus on the retina.

With every degree of convergence of the visual lines a certain effort of accommodation is associated. * * * As hypermetropia is merely a too short eyeball, accommodation must be continually active whenever the patient is looking at anything, to bring the rays to a focus upon the retina. * * * And as the effort of convergence is associated with cases where accommodation is able to free itself from convergence * *

Myopia being the opposite of hypermetropia, i. e., a too long eyeball producess divergent strabismus. Accommodation is not active and convergence is, therefore, at rest, and the globe remains in an anatomical position of rest. Hanseu Griit has demonstrated that the eyes when at

rest are in a slightly divergent position, owing to the form of the orbit, the natural length of the muscles, and the insertion of the optic nerve.

In regard to the second factor he states that the external and internal recti were not always the muscles at fault, quoting Stevens, and reporting a case from his own practice which was caused by an over tension of the superior recti muscles. This case was one of astigmatism in both eyes with the axis of astigmatism in each eye at an angle to each other. He said that Savage and others had demonstrated that in such cases there is an effort on the part of the muscles to bring about a parallelism of the axis of astigmatism to produce better vision, and in this case the superior recti muscles were attempting this work. But owing to the fact that these muscles when acting turned the eyes in there was produced a convergence of the two eyes. This case was cured by correcting the error of refraction with glasses.

The doctor illustrated this case by charts and also had drawings to demonstrate the action of the various muscles that move the eyeball, showing that the superior and inferior recti not only elevated and depressed the eye, but also rotated the cornea and drew it inwards; and that the oblique muscles not only rotated the cornea, but also turned it outwards.

He concluded as follows:

1. Every case of strabismus should be thoroughly tested with atropine to determine the effects of the drug upon the squint.

2. If the use of atropine corrects the squint no operation will be necessary, for proper fitting glasses will ultimately if not immediately produce the same effect.

3. If the condition is only partially corrected by atropinization, the difference in the angle of convergence, or divergence should be accurately measured with the perimeter to determine how much is to be corrected by operating.

4. The refraction should be carefully tested by all the means at our disposal under atropine, and a full correction prescribed in hypermetropia and astigmation.

5. The tension of all the eye muscles should be studied to determine which one or ones are at fault.

6. It should be remembered that it is desirable to get an undercorrection when operating for squint, as the results are exaggerated after a few months.

7. Whenever possible it is best to operate without a general anæsthetic, as the muscular equilibrium is disturbed under general anæsthesia.

8. If a general anæsthetic is administered, care must be taken to do as little cutting as is thought, by preliminary tests, to be sufficient to correct the abnomality.

Analgesia and Sedation, an Essential Adjunct to Treatment.

By John J. Sullivan, M. D., University of the City of New York.

On account of the frequency with which pneumonia in late years is accompanied with grippal symptoms, the treatment, to a great extent, has been modified or changed. The essential features in the result desired are a diminution of the pain and a lowering of the temperature. Opinions differ as to whether a reduction of the temperature influences the course of the disease, but a concensus of opinion is that *antipyretic* treatment is distinctly called for in the beginning, and an analgesic at all times, if needed to assuage suffering. *The antipyretic should be antikamnia, and the analgesic is supplied by codeine and antikamnia together.* This is given every three or four hours in tablets containing 4¾ grains antikamnia and ¼ grain codeine, throughout the period of congestion and consolidation. Where there is great restlessness, this will have a delightful effect.

In the nocturnal pains of syphilis, in the grinding pains which precede labor, and the uterine contractions which often lead to abortion, in tic-douleureux, brachialgia, cardialgia, gastralgia, hepatalgia, nephralgia and dysmenorrhœa, immediate relief is afforded by the use of this combination, and the relief is not merely temporary and palliative, but in very many cases curative.

In the neuroses of the respiratory organs, great relief is afforded by the use of this combination. A paroxysm of asthma is often cut short by a full dose; hay-fever or autumnal catarrh is benefited by its use.

In the harassing cough of phthisis, or in the pain of pleuritis, in the painful sensations accompanying bronchitis when the tubes are dry and irritable—as they usually are—the blending of codeine and antikamnia will not be found wanting in its action, but will give results that are gratifying to both the patient and the medical attendant. As a producer of sleep it will be found efficacious. This is doubly true when there is great nervous excitement.

In pulmonary diseases this combination is worthy of trial. It is a sedative to the respiratory centers in both acute and chronic disorders of the lungs. Cough in the vast majority of cases is promptly and lastingly decreased and often entirely suppressed. In diseases of the respiratory organs, pain and cough are the symptoms which especially call for something to relieve; this tablet does it, and in addition controls the violent movements accompanying the cough, and which are so distressing.

This combination is the remedy for diabetes and is superior to any other in diminishing the quantity of sugar in the urine, and also in diminishing the quantity of urine itself in diabetes mellitus. The bulimia and polydipsia are lessened by its use, and probably the changes in the nervous system which accompany or are causative of the disease, are

arrested or prevented. It also prevents waste. It controls restlessness; it relieves insomnia; it relieves distressing nervous symptoms. It relieves the craving of the stomach, and lessens the frequency of the calls to urinate.

It is not claimed that the combination will cure diabetes mellitus, but there will be, in many cases, arrest of the disease, with prolonged periods of good health, and cure in some cases. 266 West 38th Street, New York City.

Slight Effects of Tenotomies of the Ocular Muscles.

Dr. George T. Stevens, at the last meeting of the American Medical Association, in discussing the papers which had been read on this subject, presented some entirely new and important views. From the report of this discussion as published in *Annales d'Oculistique* we extract the following:

Slight effects are produced as the result of free tenotomies when the muscle operated on is not the one at fault. A tenotomy uniformily produces all the effect for which we have a right to expect from it. We shall not get the effect which we hope if we operate on the wrong muscle.

We must take into consideration all the conditions which enter into the anomaly for which the operation is to be done. We have many cases of deviation or of deviating tendency of the visual lines inward or outward which depend, not upon a false relation of the lateral muscles, but upon too great tension of the vertically acting muscles. In such cases one might almost remove the internal or the external recti and still have to deal with the original condition of esophoria or exophoria, of converging or diverging strabismus, for which the operation was performed.

The author referred to his published statements during several years past, that converging strabismus may often be relieved by proper relaxations of the superior or inferior recti, without surgical interference with the lateral muscles. The number of people who squint in or out who have no excessive or insufficient tension of the lateral muscles is surprisingly great. The author exhibited photographs of cases of high grades of converging strabismus and other photographs of the same cases showing that the strabismus was absolutely abolished, and this not by tenotomies of the interni, but by relaxations carefully considered and made upon the vertically acting muscles.

In any of these cases had a tenotomy of the internus been done, it is plain that a positive injury would have resulted. It is also plain that if these eyes were caused to swing in by the action of the vertically acting muscles no tenotomy of an internus short of turning the balance of the eyes distinctly outward would have served to prevent the inward squint.

Free tenotomies which cause little apparent change in the appearance

of the eyes when directed straight forward generally cause an unfortunate disability of the eye to rotate in the direction of the free tenotomy.

It is a matter of the first importance that we determine not only the absolute but comparative rotations of the eyes, not only from side to side but up and down.

A Report of 12 Cases of Organic and Functional Gastric Derangements, *Treated with Zumo-Anana (Pine Apple Digestive Wine.)*

Case 1. Mrs. S. C. Chronic flatulent Dyspepsia, tried every preparation of antidigestives without giving relief. This was one of the worst cases of the above trouble I have ever seen, abdomen being so distended as to cause pain and greatly interfere with respiration. Gave tinct. Nux Vomica with Sodil Benzoat after eating without results. When I later added Zumo Anana, improvement was immediate, gratifying to the patient and permanent.

Case 2. Mrs. C. Cancer of the stomach attended with great irritability, the organ rejecting everything introduced, even Cocaine Murist, gr. ¼, was immediately vomited. Zumo-Anana, given in tablespoonful doses was well retained and enabled me to give egg wites and beef juices to good purpose.

Case 3. Henry B. Alcoholic Gastritis attended by cerebral hyperæmia. Sodium Bromide in ten gr. doses dissolved in tablespoonful doses of Zumo-Anana given hourly for three or four doses was followed by immediate beneficial results.

Case 4. Mrs: F. W. Acute Dyspepsia attended with Castrectasis. Tinct. Nux Vomica 6 drops given with tablespoonful doses of Zumo-Anana immediately after meals acted as a specific.

Case 5. T. M., age 6. Gastro-Enterites. After trying several of the time-honored preparations without avail, used Bismuth Subnitrate in teaspoonful doses Zumo-Anana with immediate beneficial results.

Case 6. Mrs. D. Acute Dysentery associated with a temperature of 104.5 deg., active delirium rendering close surveilance necessary, frequent stools of mucus and blood, and great cephalalgia. Treatment by ol ricini to clean out colon, followed by hot stupes to abdomen and Morphia Sulph. given in Zumo-Anana internally. In twelve hours temperature was normal and convalescence uninterrupted.

Case 7. Mrs. G. Acute Dyspepsia causing irregular stools, furred tongue, insomnia and general debility. Treatment by Sodium Bromide, Hypophosphites and Zumo-Anana is being productive of excellent results.

Case 8. Mrs. S. L. W. Acute Gastro Duodenitis with Jaundice. In this case the patient rejected everything inserted into the stomach. Sodium Phosphate was indicated, but every dose was immediately vom-

ited. I determined to use it with Zumo-Anana, and was gratified beyond all expectations. The vomiting stopped and patient was soon up and about, the icturus subsided quicker in this case than I have ever observed under similar circumstances.

Case 9. Baby M. Threatened Heart Failure during Pneumonia. This little one, aged three months, had a very hard case of acute lobar Pneumonia, with a temperature of 105 deg., and pulse 185. I gave her ¼ drop Tinct. Strophanthus in teaspoonful doses Zumo-Anana, which was excellently well borne, and caused general improvement for a while. Later, however, the disease progressed to a fatal termination in spite of hot poultices; stimulants, etc.

Case 10. M. P. Cardialgia and Borborygmus, trouble extends over a period of ten years, is periodical in its nature. Is taking teaspoonful doses Zumo-Anana after meals, and says he has not been as comfortable following eating for many years.

Case 11. Mr. J. B. S. "Sorivner's Palsy and Gastric Derangements." Strycnnia and Electricity with Zumo-Anana given alone for the indigestion has cured the "writer's cramp," and removed the stomach trouble.

Case 12. Mrs. A. "General Debility incident to Lactation and following Malarial Toxæmia."

A wineglassful of Zumo-Anana taken during each meal meets the requirements admirably. In conclusion I desire to state that these are but a few of a number of cases that I have used this preparation. It is an excellent vehicle for the administration of Potassium Iodide as well as many other standard drugs that cannot be well made palatable otherwise. Furthermore the sterling worth of the firm who represents this preparation, Meyer Brothers Drug Co., St. Louis, is a voucher for the honesty and integrity of purpose in presenting the same to the medical profession.

C. H. Powell, A. M., M. D.,

Prof. Physical Diagnosis and Clinical Medicine, Barnes Medical College, Clinical Barnes College, Free Dispensary Manager and Editor of the General Practitioner, Medical and Surgical Journal, St. Louis.

Apolysin, A New Antipyretic and Analgesic.

By Drs. L. v. Nencki and J. v. Jaworski.

As a study of the relation between pharmacodynamic action and chemical constitution amongst several aromatic compounds the new remedy, Apolysin, has lately been the object of much attention in the Warsaw and St. Petersburg hospitals.

Apolysin is nearly related to phenacetin with this difference, that instead of being an acetic acid derivative of para phenetidin, citric acid takes the place of acetic acid, Apolysin is a yellowish white crystalline

powder of acid taste, though not so distinctly acid as citric acid itself, which dissolves in cold water in the proportion of 1 to 55 and in hot in any proportion. It melts at 72° C. In other respects Apolysin closely corresponds in chemical behaviour to phenacetin.

Present knowledge of pharmacodynamic relations indicated that Apolysin from its constitution would be non-poisonous, split up into paraphenetidin, ethyl and citric acid in the organism, producing a reduction of temperature and analgesia, and the phenetidin eliminated in the urine in the form of a glycuronic or sulpho compound.

The absence of toxic properties in Apolysin was proved by experiments on frogs and rabbits, one, four and eight per cent. aqueous solutions being gradually injected in the proportions of $\frac{1}{2}$ to 4 parts Apolysin to 1000 parts animal body-weight. The frogs as well as the rabbits bore the injections well and without any disturbance to the health or general condition. The products of the decomposition of Apolysin were found in the urine of the rabbits combined with sulphuric acid. The urine possessed the same behaviour towards reagents as after the administration of phenacetin. Compounds of glycuronic acid could not be discovered.

Before administration of Apolysin to fever patients its antiseptic action was first tried on animals. For this purpose two rabbits were taken, in one of which diphtheritic toxine, in the other a pure cultivation of pyogenous streptococci was injected. The temperature of the animal inoculated with toxine rose after three hours to 39·6° C., and on the afternoon of the second day to 39·9° C., 1 c.c. of a 10 per cent. aqueous Apolysin solution was injected. The temperature rose in the evening to 40·5° C., but on the next day the morning, afternoon and evening temperature were 40·1°, 39·5°, and 39·2° C., respectively, and on the fourth day at the same hours 39·5°, 39·1°, and 39·0° C. The second animal inoculated with pyogenous culture exhibited a temperature of 40·3° C. in the evening, and the next morning at 40·1° C., 1 c.c. of a 10 per cent. aqueous Apolysin solution was injected at eleven; at twelve o'clock the temperature fell to 39·4°C., at three o'clock 39·3° C., at seven o'clock 40·2° C., and nine o'clock 40·1°C.

Progressing to clinical observations Apolysin has been employed for the purpose of testing its antipyretic and analgesic properties in the following cases: 4 cases of croupous pneumonia, 1 case of scarlatina, 1 case of abdominal typhus, 13 cases of influenza, 2 cases of puerperal fever, 1 case of pyæmia, 5 cases of angina follicularis, 1 case of facial erysipelas, 3 cases of hemicrania, 2 cases of sciatica, 7 cases diagnosed generally as cephalalgia, 3 cases of neuralgia nervi trigemini, 1 case of neuralgia cervicooccipitalis, and 2 cases of neuralgia plexus lumbalio. The Apolysin was generally administered alone in powder form, in doses of 15 grains three times daily at intervals of an hour, and only in a few cases was it combined with bromides, and twice with caffiene salts.

From these investigations and clinical observations the following conclusions have been determinded:—Administered internally Apolysin has an antithermic action on fever patients, and, simultaneously with the fall of temperature, brings about the disappearance or abatement of quite a series of symptoms, especially painful symptoms.

In neuralgias, Apolysin has an analgesic action, diminishes hyperæsthesia, shortens the duration of single attacks, and often causes the symptoms to disappear entirely.

Thanks to its chemical constitution, Apolysin acts quickly and safely, and as far as the observations have been conducted, does not cause any unpleasant symptoms.

The administration of Apolysin is contraindicated on empty or fasting stomachs, or where there is an excess of acid secreted.

Apolysin is easily soluble, and is therefore more quickly absorbed, and more reliable in its action, than phenacetin, and similar remedies.

Apolysin is practically non-toxic, and, consequently, can be given in large doses in order to produce analgesic and antipyretic effects rapidly, without danger of bye-effects. Herein lies the principal advantage of Apolysin.

Electrolysis for the Surgical Treatment of Strictures.

By J. A. Fort, M. D., Professor of Anatomy in the Ecole Pratique of the Paris Faculte De Medecine.

It affords me great pleasure to have the honor of being allowed through the kindness of your president to present to you a new instrument which I have devised and called "electrolyser," for the surgical treatment of strictures by the "linear electrolysis" method.

It is a well known fact that electrolysis has been discarded on account of the imperfect instruments which were used. My electrolyser has all the advantages of the urethrotome and none of its inconveniences. It looks like a small whip of which the handle contains a metallic wire projects from the end which connects with the flexible part. This instrument being first introduced into the urethra, is connected with the negative pole of a continuous current battery, and the positive pole is connected near the affected part, on the front of the thigh or over the pubes; then the current is turned on.

The operation which is almost painless, requires thirty seconds (on an average), with a current of a strength of at least ten milliamperes, as indicated by means of a galvanometer. The electrolyser remains perfectly cool during the operation. In nearly all cases there is no bleeding, or but very little. The urethra is made aseptic before and after the

operation, in order to prevent fever. I never allow a sound to remain permanently in the urethra for any length of time after the operation.

Usually the wound resulting from electrolysis heals quickly without any local treatment whatever, and often the patient can attend to business immediately after the operation.† In nearly all cases I pass a sound the third day after the operation, also the day after. I instruct the patient to pass a sound, No. 22 or No. 24 F., every month and every other month.

With the urethrotome, which cuts blindly, the surgeon can not ascertain the degree of density of the tissue of a stricture. On the contrary, by means of electeolysis, which merely produces a molecular destruction of the stricture, although the instrument remains cool, I have been able to demonstrate that there are two classes of stricture—"soft and hard." Hard strictures are in the proportion of one against five soft ones.

The time required to perform the operation varies with the density of the stricture. Some strictures are so hard that they cannot be successfully operated upon by electrolysis.

If any American colleagues who are familiar with the French language are willing to refer to one of my books entitled *Traitement des retrecissements par l'electrolysis lineaire* (this book can be procured at the library of the Academy of Medicine), they may find it quite interesting, as it will enable them to understand the improvements which have gradually been introduced in the applications of electrolysis to surgery during the last fifteen years. They will also understand how I have applied electrolysis to the treatment of strictures of the urethra, uterus, rectum, and œsophagus.

Up to date, I have performed in Eurnpe a hundred and thirty-five operations on strictures of the œsophagus (recorded in my book), and with the exception of those which were caused by malignant growths of the wall of the œsophagus all recovered.

It has been my good fortune to meet here some leading surgeons who are authorities in the treatment of strictures, and I am very grateful to them for their kindness in giving me the opportunity to demonstrate the advantages of my method in operating upon some of their patients.

Sennine, The New American Antiseptic.

This product is composed of Boracic Acid and Phenol and is unexcelled as a dry Antiseptic Dressing. The only perfect substitute for Iodoform, Carbolic Acid, Bichloride of Mercury, etc. It is *entirely odorless*, consequently preferable and is very highly recommended by the most prominent surgeons.

†When the wound does not heal, I merely prescribe injections morning and evening with one part of hydrozone to twenty parts of water.

A Clinical Lecture at the Polyclinic Hospital--Chloasma.

By J. Abbott Cantrell, M. D., Professor of Diseases of the Skin in the Philadelphia Polyclinic and College for Graduates in Medicine, Dermatologist to the Philadelphia Hospital, To the Frederich Douglass Memorial Hospital and to the Southern Dispensary, Philadelphia.

Gentlemen:—I wish to call your attention to a condition of the skin in which we are confronted with brownish discolorations and as they may vary in degree of color they may prove very obnoxious to the unfortunate bearer of this change from the normal pigmentary deposit. This disease generally shows itself in patchen having usually well defined borders, as a rule being symmetrical and occupying the face in the majority of instances although this is not positively the only position in which they are encountered. In contour we may witness them rounded or at other times being rather oval in outline. Their color will be found usually of a yellowish brown or a brownish dirty tint but at times they have been known to show a black or a bronzed deposit at which time the name "Melahoderma" has been applied to them. Should they be found diffused over some extent of surface the margins lose their distinctive border and may be seen to fade imperceptibly into the surrounding unpigmented areas. Those regions which show a higher degree of pigmentation in their normal state as the axillary spaces, nipples, unbilicus, the flexor surfaces of all joints as well as the anogenital, region at this time present a much higher degree than the surrounding diseased surfaces. One point that I wish to impress strongly upon your minds is the fact that the parts immediately surrounding the hyperpigmented areas apparently have lost some of their natural pigment to the increased portion as if it had been absorbed by it. This is to some extent resembles the condition or disease "Vitiligo or Laucoderma." The disease with which we wish to combat is likely to assume different varieties and for the convenience of study may be divided into the idiopatic and the symptomatic. To the idiopathic form we ascribe all in which this deposit is caused by external irritants, such as is apt to follow diseases in which intense itching is a marked accompaniment, as for instance, an old pediculosis as may be witnessed in those of tramp life or in all of the lower grades of humanity, produced in the affections diagnosticated as pityriasis nigra, eczema, lichen ruber planus, scobies, prurigo or even urticaria. It may also be produced by the cauterizing effect of some sinapisms applied for their counter-irritant action. This latter condition may be produced by some of them when applied upon unusually thin or delicate skins or where the application has been left in position for an indefinate time, and in this we are likely to find that the pigmentation is more usually to be permanent. The rays of the sun must not be overlooked as a producing agent as is also the extremes of heat that may be witnessed in those who may be

workers in foundries, stokers, etc. Pressure wherever applied may also give rise to some pigmentation as wearing tight garters or the friction and pressure that may be applied for too long a period as in dressings of the surgeon for some affection that requires long continuous bandaging as in fractures or contused wounds.

Under the form ascribed to symptomatic causes we may include those discolorations that are due to some affection of one or more of the internal organs, Tuberculosis, malaria, cancer, addison's disease as well as eruptions of the secondary stage of syphilis should not be overlooked as a distinct cause of this deposit.

This affection has been witnessed as following the prolonged internal use of arsenic in such diseases as psoriasis, dermatitis Herpetiformis and either or both forms of scleroderma. The atrophic changes of the aged produced also a pigmentary deposit in the skin which is more or less permanent. The form spoken of as Chloasma Uterinum or Hepaticum" is often found in women who have never given birth to children or at times in those who have never married. In this variety the lesions may be found to occupy certain portions of the face such as the eyelids, the angles of the eyes, while the cheek, upper lip and chin may also show the same condition. The disease will be found to vary in extent in the majority of the cases, in one instance, covering a small area while in another it may occupy large portions of the regions attacked. The regions affected may be almost at any portion of the body as for instance we find small areas that often accompany menstruation and these may be permanent or transient, disappearing immediately after the menopause. Similar pigmentations which are transient are witnessed during the pregnancy of a female and at this time it is found upon the nipples and along the linea albicantia and gentital regions, but which generally disappears after the birth of the child. The disease is usually witnessed in women and between the ages of twenty and thirty years. It may occur in the male sex but not so frequent as in the opposite sex.

From these remarks you may gather that the disease may have a variety of causes which occasion an engorged condition of the smaller blood vessels of the skin, the so-called capillaries, while the blood gives the coloring matter to the parts (marked mental excitement and diseases of the nervous system have at times proven a factor in its production).

The pigment is found in the mucous layer of the epidermis. The diagnosis is rarely difficult because the patches have a characteristic tint, do not disappear upon pressure of the finger, and never at any time present any inflammation. Tinea versicolor is more likely to be confounded with it than any other affection of the skin and this may be different positions upon the body, most usually the trunk, and the disease under consideration usually upon the face. In addition to this the latter disease is scaly but at times this fact may not be apparent but by simply

passing the finger over the surface you may see the scales arising beneath the finger nail.

I have two cases which I wish to show before making any reference to the treatment and as they both are typical examples of the disease I hope that you will make the best from them that is posible: I wish you to study the looks of the condition in every particular look at its borders and see if they have any characteristic point that will give your observation when at home in your daily routine of life. Study the color of the patch and remember the color of the skin witnessed in tinea versicolor, take your knife if you have doubts and see if there is any scaling, whether the condition is raised or on a level with the surrounding healthy skin.

The first case which I show you occurs in a young lady of 23 years and according to her statement it has existed in its present locality for the passed three years and as she has been doing nothing for it she states that it has remained in statu quo not having increased at any time. You may notice that it is confined to the anterior portion of the face but not in the median line but rather on both cheeks but at the same time showing itself plainly to one who may be in front of the lady and for that reason she wishes to have it removed. As I spoke to you a few moments ago, look at the edges and you may see that while they are apparently distinct they at the same time fade imperceptibly into the surrounding unaffected skin. The borders are somewhat serrated and not postively rounded. The extent of surface involved is considerale and shows plainly and thus causes so much distress to the young lady that voluntarily she is confined to the house. The color is an important part to remember also. Some of the effected area is of a light yellow, while at other points it shows a much darker streak in fact almost running into a brown. At points throughout the diseased area small but darker spots are visible and these I believe are freckles so-called or technically Lentigines.

The second person to present herself is also a lady of about 30 years, and upon visual examination the patches are found much more extensive than in the previous case. This lady presents lesions which are scattered at irregular points over the face and while it does not cover so much surface in any one lesion the patches are found to be more numerous. This is certainly more noticeable than if the diseased area was only one spot. The lesions vary somewhat in extent being from the size of a half pea to a penny and as the lesions number five or six, the lady is over anxious for their removal as quickly as posible. The edges show more plainly than in the preceeding case being in fact so distinct that it cannot be said that they fade into the surrounding areas and unfortunately causing more notice to be taken of them. They are apparently raise to some extent above the level of the unaffected skin.

The first step in your treatment of such a case will certainly be the

finding of the fons et origo morbi if it is possible in any given case but as I shall be obliged to state, this is not so easy a step as one would imagine but often will give you a considerable amount of trouble and without any positive hope of finding what you seek. Therefore remember that the hyperpigmentation is to be destroyed and as it is situated in the epidermis we should attack its upper layers before we can hope to accomplish anything, Blistering with croton oil or any other drug having this quality such as cantharides should be strenuously thrust aside because it is more than likely that the pigmentation will be increased by resort to such means. Several drugs are mentioned as having the properties wished and from this list we select bichoride of mercury as the one better adapted to our purpose. This drug may be applied in solutions of water in strengths varying from one half to four grains to the ounce. In making applications with this solution it may be well to keep it in contact with the affected area for periods ranging from one half to one hour or even longer at each seance. Other remedies have given good results in my hands, and of these salicylic acid is given the first choice, it may be advised in ointment or solution: but more preferably the ointment on account of its adhesiveness. A saturated solution of the acid in water may be kept in contact for a considerable period but must be given careful attention or harm may supervene. Hydrogen dioxide at times causes a temporary disappearance of the patches but it is exceedingly doubtful whether this influence will be constant or that the lesions may return. Such drugs as Acetic acid, ammoniated mercurial plasters, as well as boric acid have at times given fair results. Saponis viridis or the tincture of iodine although decided cauterants deserve trial, but extreme care must be taken or our efforts will be marred with failure. Hydrochloric acid or even carbolic acid may also be used cautiously with fair hope of benefit.

The prognosis is rather unsatisfactory at the best, but may in the majority of the cases be hoped for. Sometimes it is impossible to remove the pigmentation even when treated properly for long periods. At times the pigmentation disappears spontaneously but only when the exciting cause itself has first been removed. Often in spite of the greatest care and persistance it remains during the life of the individual or is very apt to return.

315 South Eighteenth Street.

A Letter to the Editor.

BATTLE & Co,, Chemists' Corporation, 2001 Locust Street.

ST. LOUIS, Feb. 3rd 1896.

CHARLOTTE MEDICAL JOURNAL, Charlotte, N. C.

Gentlemen:—In the Nov., number of your Journal, page 332 you ask your readers to send you the names of druggists found substituting to-

gether with evidence of same and you will publish the names and addresses of the substitutors. We send you below the names and addresses of a few that we have caught substituting. The samples were purchased on prescriptions and are now in the hands of the purchasers, have never left their possession, two gentlemen of good standing and who are willing to appear at any time and place to give their testimony—if necessary. We will guarantee to prove the substitution should any of the parties object to having their names so published, but it would be imprudent to send you the spurious samples as we would by so doing impair if not break the force of the evidence. These names have been published in the Courier of Medicine of this city for some time and are as follows:

Stegner Drug Co., Cor. Grand and Easton Aves., St. Louis.
J. W. Crain, 75 West Madison Ave., Chicago.
International Pharmacy, 422 S. Clark St., Chicago.
Merz Bros., S. W. Cor. 12th and Ogden Ave., Chicago.
Richard Jentzsch, 12th and Ogden Ave., Chicago.
Stolz & Grady, 104 North Clark Ave., Chicago.
Chas. H. Schad, 344 E. Washington St., Indianapolis.
Chas. S. Hayer, Fifth Ave., and York St., Louisville.
E. Kampfimeller, Seventh and Broadway, Louisville.

Respectfully Yours,

C. A. Battle, V. P.

Some Notes on Trachoma.

Dr. Matthias L. Foster, of New York City, read a paper with this title before the Medical Society of the State of New York, January 30th, 1896.

The use of the word grannlar to distinguish the first stage of trachoma is objected to because the conjunctival elevations are not granulations, because some authors indicate by this name a different stage from that meant by others, thus creating confusion, and hence its use tends to perpetuate the empleyment of the term "granular lids," which has lost any definite meaning it may once have possessed. It is often applied to conjunctivitis, blepharitis and simple hyperæmia of the conjunctiva, because these are all associated with a feeling of irritation or scratching on account of the swollen conjunctival vessels. There is also a widespaead belief among the laity that "granular lids" are incurable, and patients with easily curable diseases suffer patiently for years because the doctor has told them that they have "granular lids." The term should be abolished.

The distinction made by many authors between follicular conjunctivitis and follicular trachoma is protested against because it rests on no histological basis, because in many cases the most expert cannot distinguish between them, and particularly because while both are amenable to

the same treatment the mistake of a trachoma for a follicular conjunctivitis, which is supposed to require no treatment, may condemn a patient to a lifetime of misery.

Trachoma rarely invades the ocular conjunctiva, but a case was described in which the follicular swellings extended almost to the cornea, while a fold of trachomatous tissue hung down from beneath the upper lid. A remarkable case of larmus in the form of false pterygia, which was successfully removed by operation, was mentioned.

That gonorrhœa is the primary cause of trachoma is not borne out by the writer's observations. There was about an equal amount of the disease in the male and female departments of an institution for the care of children, and the statistics of the Manhattan Eye and Ear Hospital for twenty years showrd an almost equal number of each sex had been treated. Statements were quoted to show that certain races among whom one disease is common are largely exempt from the other.

Expression of the contents of the follicles is urged whenever the disease is met with in the first or follicular stage. If this is delayed the time when a serviceable operation can be performed will too often pass by and years of suffering be entailed. The author prefers Dr. Prince's forceps for the performance of this operation, though several others are equally efficient. Those devised by Dr. Knapp are objectionable for several reasons, and though efficient are no more so than others, which do not possess the objectionable features.

For the latter stages the application of sulphate of copper every alternate day, together with the daily instillation of a drop of tannin and glycerine, ℥ij to the ℥i is recommended as usually giving the quickest and best result.

We invite attention of our readers to the abstract, in this No., of a paper on "Morphinism in the Young," read before the N. Y. Academy of Medicine, by Dr. J. B. Mattison. The paper has been editorially pronounced "of universal value," relating as it does to a subject that reaches the lives of more little ones than the world will ever know of. It seems to us that the "vice" theory of the morphine disease gets a bad blow from the logic of Dr. Mattison's paper, for, as he well observes, "vicious desire," "evil propensity," "moral obliquity," as a genetic factor, cannot possibly obtain with the little victims of this disease.

The paper is written in a "very attractive style," and we advise all who have an interest in the subject to secure a reprint.

Nasal Catarrh.

In cases of chronic nasal catarrh where the mucous membrane is congested and irritable, a solution of equal parts of distilled extract of witch hazel and water, sprayed in the nose, often does very well, but first the nasal cavities must be well cleaned.—Hare.

The Question of Puerperal Self-Infection.

Dr. Charles Jewett discussed this subject in a paper read before the N. Y. State Medical Society, January 28th, 1896. The question was studied from the standpoints of the bacteriological findings and of the clinical facts.

Even in healthy women, who had not been examined, the vaginal mucus frequently contains pathogenic bacteria. To what extent these vaginal germs are liable to become virulent is a question still in dispute.

Of sixteen obstetric authorities consulted, in this country and in Europe, more than half practice vaginal douching at the beginning of labor, and are presumably believers in auto-infection. Their puerperal results, when compared with those of their colleagues who do not douche, proved practically nothing for the douche.

The statistics of Leopold in parallel series of cases with and without the douche are more conclusive. They establish the fact that preliminary vaginal irrigation is not only unnecessary but injurious.

Leucorrhœl secretions expose the woman to puerperal infection. Several instances of post partum fever from the latter cause were cited from the author's experience. Of 16 gonorrhœal women 8 had feverless child-beds ; in 8 the puerperal temperature exceeded 100°, and in some instances reaching 103° F. One death occurred in a case seen in consultation in which an ichorous vaginal discharge, existing before labor, was believed to have been the source of infection.

n 53 examinations made by Dr. Jewett, the litmus reaction was not always found a reliable test of the condition of the vaginal secretion. It was sometimes strongly acid in pathological secretions.

The paper concludes with the following recapitulation :

There is no clinical proof that puerperal intection can occur from normal vaginal secretions.

All child-bed infection in women previously healthy is by contact.

Prophylactic vaginal disinfection as a routine measure is unnecessary and even in skilled hands is probably injurious.

Its general adoption in private practice could scarcely fail to be mischievous.

In healthy puerperæ, delivered aseptically, post partum douching is also contraindicated.

These rules must hold good in the simpler cases of manual or instrumental interference, in which the uterus is not invaded.

A purulent vaginal secretion exposes the woman to pueperal infection.

In the presence of such discharges at the beginning of labor the vagina should be rendered as nearly sterile as possible.

Concentrated antiseptic solutions should not be used, and the pro-

cess should be conducted with least possible injury to the mucous surfaces.

In case of highly infectious secretions the preliminary disinfection should be followed by douching at intervals of two or three hours during the labor.

Sterilized glycerine or other suitable material may be used to restore the proper lubrication of the birth canal.

The safest and most efficient means for correcting vicious secretions is a mild antiseptic douche repeated once or more daily for several days during the last weeks of pregnancy.

It is the duty of the obstetrician to know before labor the amount and character of the vaginal discharge.

Clinically the amount of the secretion, its gross appearance, and the condition of the vaginal mucous membrane, and of the adjacent cutaneous surfaces are a sufficient guide to the treatment.

Possibly unclean contact within 24 to 48 hours before labor is an indication for vaginal disinfection.

Congenital Dislocation of the Hip, with Report of a Case Cured.

Dr. Halsted Myers read a paper on this subject before the N. Y. State Medical Society, and showed the case.

He said the many recent operations had made us much more familiar with the anatomical changes found in these dislocations, and that there seemed to be two classes of cases, those due to traumatism at birth without actual malformation of the parts, and those where the malformation was the cause of the dislocation. The changes which occur in consequence of walking the writer considered of much importance. The anteversion and flexion of the neck of the femur especially being likely to cause a relapse. Therefore an early diagnosis favored the prospects of cure. If the child was seen before the appearance of the secondary changes mentioned above, reduction of the deformity was almost invariably possible, and relaxation could probably be prevented by careful and prolonged mechanical treatment. The reduction was best accomplished by Paci's method, that is the limb should be forcibly flexed fully, then abducted about 50°, then rotated outward, then extended. The limb is then put up in a plaster of Paris spira, with about 30° of abduction. The writer thought the forcible manipulations favorable as reducing the shortening at once, and also tending to produce an adhesive inflammation, which help secure the head of the bone in the acetabulum. He also thought that if the muscular shortening were fully overcome at the time of operation, extension on the limb was not indicated, as it tended to pull the head of the bone out of the acetabulum again. After keeping the limb fixed in the abducted position and employing massage for about four

months, the child could begin to walk in apparatus which maintained the limb in an abducted position and exerted some inward pressure on the trochanter.

If a fair trial of this method had failed resource could be had to the open methods of Hoffa or Levenz. The latter operation seemed to be the less dangerous and the simpler of the two. There had been many poor results reported from these operation, and in 302 cases Dr. Myers had found the mortality to be between three and four per cent. An examination of the fatal cases showed, however, that they were almost invariably due to sepsis. Therefore this operation should not be undertaken by any one who cannot operate with perfectly aseptic surroundings. Under the latter circumstances Broca had no death in his last 22 cases, and Levenz had none in his last 100 cases. The results of these operations are not perfect cures, but are a great improvement over the condition of the child left unlocated.

With the knowledge that this deformity will steadily increase with the growth, that one-third of all the cases have more or less pain from the dislocation, and that the limp will become worse and worse, it seems that these children should receive active treatment and at as early an age as possible.

The case presented was a little girl of four years. Nothing was noticed wrong with her until she began to walk. Then the limp called attention to the hip. Dr. Myers saw her in February, 1895. The shortening was then 1½°. The telescoping of the point marked. The trochanter prominent. On walking the limp was very marked, and spinal lordosis present. The dislocation was reduced by the Pasi method, and the plaster of Paris spica changed every three weeks for manipulations till July, 1895, when a walking brace was applied, and the child allowed to go about freely. For the past three weeks the child had walked without her brace part of the time. The shortening was now less than ½°. The head firmly fixed in the acetabulum, and there was no telescoping of the joint. The motions of the joint were perfect. There was no lordosis. This being the condition a year after operation, a permanent cure was hoped for.

"Carbuncle."

Dr. C. A. Gray, of Bonham, Texas, (Transactions of the North Texas Medical Association) read a paper on the above subject, in which he at first called attention to the neglect these minor surgical diseases receive by the profession.

He then, after defining Carbuncle, gave the etiology and pathology. He called especial attention to Malaria as being a prominent factor in the etiology in the South. After giving the differential diagnosis between Carbuncle, Furuncle beginning Erysipelas, Phlegmon and Anthrax, atten-

tion was drawn to the treatment, in which he advised both constitutional and local. Iron and quinine were to be given in full doses ; strychnine and arsenous acid were indicated in some if not all cases, with marked asthenia. The bowels were to be kept active. He pointed out the advantage of radical local treatment early in the disease, before the patient was still further exhausted by the progress of the disease, in which he recommended thorough incision, either crucial or circular, then removing all the necrosed tissue with forceps and curette, and then applying pure carbolic acid to the former seat of disease. Cocaine should be used as a local anesthetic in all cases before operation. The cavity was then packed with iodoform gauze. He also pointed out the advantage of applying a 10 per cent. solution of Permanganate of Potash to the surrounding integument when it presented an angry red appearance. By the above treatment he said his results had been excellent.

The Technique of the Improved Cesarean Section.

Dr. Henry J. Garrigues, of New York, read a paper on this subject, (New York State Medical Society Transactions) in which he said he had recently performed his third operation of the kind. The first was performed before the introduction of aseptic widwifery, on a person affected with caries of the spine and many other diseases. She died of sepsis. The child was dead before the operation.

The second was performed with full antiseptic precautions, especially using bichloride of mercury and iodoform. It was performed on a healthy woman during the first stage of labor. Mother and child did well.

The third was performed according to the rules of aseptic surgery. Although the patient had been thirty-five hours in labor, she made an excellent recovery. Living child.

When he performed his first operation, which abroad was registered as the third Sanger operation, he did not know anything about Sanger. His guides had been the report of Lungren's two operations in Toledo, Ohio, and the general progress made up to that time in surgery and gynecology.

If possible the operation should be performed toward the end of pregnancy, before labor sets in. The cerosis is dilated manually to leave room for drainage. An incision is made in the median line, half above and half below the umbilicus, just long enough to pull the uterus through, i. e., about six or seven inches. When the uterus is turned out, it is surrounded by a warm sterilized cloth. Three or four sutures are inserted in the upper part of the incision and tied, keeping omentum and intestines out of the way. A rubber tube is laid loosely around the cleaves and the broad ligaments, and tightened, but not tied, when the uterus is being opened. An incision is made in the median line of the uterus from the

upper end of the cavity far enough down to extract the child, but avoiding the lower uterine segment, where there are large veins, and which contracts less well. If the placenta is inserted on the anterior wall, it is cut through. If it is on the posterior wall and detached it is removed in one piece with the membranes, which have to be peeled off. If it is not cast off, the deep sutures are inserted through the edges of the incision before removing it. Interrupted silk sutures are used for closing the uterus. There is one deep suture for each inch of the incision. The endometrium is not comprised. In tightening the deep sutures the serous surface of the peritoneum on one side of the incision is applied against that of the other side, forming a seam above the muscular tissue. Between each two deep sutures is put one superficial through the peritoneum alone, likewise bringing serous surfaces in contact. The constriction should be loosened slowly. If there is any hemorrhage it is checked by compression, kneeding, affusion of hot water, or intra-uterine plain or astringent douches. When all hemorrhage has stopped, the abdomen is closed with interrupted silk sutures. The dressing is changed once a week. The sutures are removed at the end of the first week, and replaced by plaster strips. The patient gets up at the end of the third week.

Operation in Chronic Glaucoma.

Dr. Nettleship, Ophthalmic Surgeon St. Thomas Hospital, in discussing the above subject, at the meeting of the British Med. Society, held in London, Aug. 1895 said, in substance:

There are many things about chronic glaucoma upon which we need spend no time, we know that, speaking comprehensively, operations for chronic glaucoma are often negative in result and occassionally harmful, and we know that, even if nothing be done, the course of the disease is slow (ten years and upwards), that had an operation been performed early in the case, the operation could not have been credited with any share in the result. But such extremely slow cases are rare, and as chronic glaucoma when untreated commonly runs much the same course in both eyes of the same person, the effect of operation on one eye can often be gauged by the course the malady has already taken in the other.

The Doctor now asked if anything is gained in trying to distinguish between cases of chronic glaucoma in which the diagnosis admits of no doubt, and others, where, owing chiefly to the absence of decidedly increased tension, the diagnosis of a peculiar form of atrophy of the optic nerve with cupping of the disc is sometimes made? He is of the opinion that cases in which the disc shows well marked glaucomatous cupping should be dealt with as glaucoma, whether demonstrable increase of tension be present or not.

Another question, is it true that iridectomy performed when the

visual field is already lost nearly up to the centre is often followed by a further loss of field which engulfs the centre and thus seriously damages visual acuity? His own experience on this point was favorable as he has had very few cases of quiet glaucoma in which the field became worse as an apparent result of operation, while there is quite a number in which the field of vision remained the same as before the iridectomy. The risk of further rapid loss of field as a consequence of iridectomy is probably greater when the tension is much increased that in these cases in which it is about normal or only slightly plus.

The doctor stated that his experience was in favor of early operations in this class of cases since by so doing, more vision was saved the patient and the risk of internal haemorrhage is less in the early period, before marked atrophy of the ciliary processes and iris had taken place, and of course the hope of re-establishing the angle is better.

Another point, if we operate early, in chronic glaucoma, we must, in practice, sometimes operate on cases in the prodromal stages before permanent loss of field and before the disc can have changed much; cases, in short, which if left alone, some would become chronic and others develop into the acute form. There can be, therefor, scarcely a doubt that if iridectomy were commonly performed in the prodromal stages of glaucoma the number of persons who become blind from this dread disease would be considerably lessoned. The risk of an operation, carefully done is very small; the prospects of immunity conferred by it are very great.

Morphinism in the Young.

Dr. J. B. Mattison, of Brooklyn, in a paper read before the section on Pediatrics, New York Academy of Medicine, 10th of October, 1895, said that reported cases of Morphinism in the Young were rare, but he believed it much more frequent than clinical records imply, and had a far larger bearing on infantile mortality than vital statistics attest. Morphinism in the young may be congenital or acquired. The latter is more often noted, for the former is frequently overlooked, and the child falls into fatal collapse, which is set down to other disease.

Several cases were cited, the most notable being that of a babe, four months old, to whom was given paregoric, then laudanum, to quiet pain and unrest, and three months later was getting one ounce of laudanum—about six grains of morphia—daily! The result was disastrous, but, under treatment, the child recovered. This case, quite uniqe.

Emphasized the rapid use and progress of morphinism in the young, and it gave added disproof to the vice origin of the morphine disease—an idea largely but mistakenly held by many both in and out of the profession. Surely, "vicious desire" does not obtain among babies? Surely, moral obliquity plays no part in patients four months old! No, no. In

the young, as in later life, a physical need is the great genetic factor in this disease. Still further proof of its somatic status, as regards etiology, is given, when the opiate is withheld or withdrawn. Knowing, beyond question, that psychic factors have no place either in causation or continuance of morphinism in the young.

The result of this toxic neurosis, in early life, is, as a rule, when not rightly managed, speedy decline and death. The prognosis, in many cases properly treated, is good.

The treatment should be slow opiate decrease, with a proper roborant regime. Under no conditions—save peculiar and beyond control—should the quitting be abruptly complete. This method—*monstruous, brutal, mentioned only to be denounced*—sometimes causes fatal collapse in middle life—a peril much more likely in the delicate organism of the young.

Closing the paper belief was expressed that morphinism in the young is a preventable disease, and that large promise of good is to be had in careful instruction by the doctor to mothers and nurses as to the risk in giving opium, in any form, to the young; National or State control of all nostrums, compelling their makers to print the formula, so that "he who runs may read."

The Surgical Treatment of Backward Displacements of the Uterus with Special Reference to Vaginal Fixation.

Dr. Hiram N. Vinebery, (Transactions New York State Medical Society, January 28, 29, 30, 1896,) read a paper embodying the results of his experience with vaginal fixation, and giving a critical review of Alexander's operation or entro-fixation.

He had performed the operation of vaginal fixation 48 times in all. The cases required to be divided into the following series:

1st Series. Simple vaginal fixation without intentionally opening the peritoneum.

(Group a.) Mobile retroflexions and versions without recognizable disease of the adnexa. Five cases. Results, four cures and one relapse after four months, following an induced abortion. Duration of observafaom 7 to 30 months.

(Group b.) Retroflexio-versions with adhesions and moderate disease of the adnexia. Fifteen cases. Results, eight cures, and seven relapses occurring from four weeks to four months. Of the seven failures, four were cases of congenital retroversion. Duration of observation from 15 to 30 months.

2d Series. Vaginal fixation, combined with vaginal coeliotomy.

(Group a.) Mobile retroflexio-versions, with slight disease of the adnexa. Nine cases. Result, nine cures. Duration of observation 3 to 14 months.

(Group b.) Retroflexio-versions, with adhesions and considerable

disease of one or other adnexa, requiring ablation of one adnexa and plastic surgery of the other. Twenty cases. Results, nineteen cures, and one partial relapse. Duration of observation from 1 to 14 months.

The case of partial failure, in group b of the second series, was due to the circumstance that owing to the weak condition of the patient, the operation was not fully completed. Four (4) of his cases to his knowledge became pregnant. One brought on an abortion at the fourth month. Two went to full term, having an easy and normal labor, and having no disturbances during the pregnancy. The fourth was five months and a half pregnant, and gestation was progressing favorably, the uterus lying in normal position.

If the technics followed by him would be observed there ought not to be any trouble during pregnancy and labor.

In the cases reported in Germany, where such trouble did obtain, Duhrssen's method was employed, in which the technic was decidedly faulty. The objection to this method was that it fixed the fundus to a part in the vaginal vault, just a little anterior to its central point. The uterus was thus either doubled-up on itself, or the cervix thrown backwards and upwards towards the promontory. In the method followed by the author the uterus was sutured to the vaginal wall near the urethral meatus, and the superior suture was carried into the anterior wall of the uterus. about 1 c.m. below the insertion of the tubes.

Vaginal fixation had the following advantages over ventral fixation:

1. It did not necessitate an incision in the abdominal wall.
2. It avoided the annoyances of stitch and mural abscesses.
3. It precluded the possibility of hernia.
4. It was less dangerous.
5. The patients were much more comfortable during the first few days than after the abdominal cœliotomy, no matter how simple.

It had the following advantages over Alexander's operation:

1. Its indications were much more extensive.
2. It permitted a direct exploration of the adnexa and conservative surgical treatment of them.
3. It avoided hernia, a not infrequent occurrence after Alexander's operation.

The technics he now followed differed in some respects from those followed by all other operators. They differ from those of Mackenrodt

1. In that the peritoneum is always opened.
2. In that the fundus is delivered through the incision.
3. In that the adnexa are directly treated as they would be by the abdominal route.
4. In that no attention is paid to the vesico-uterine space.
5. In that the uterus is stitched directly to the vaginal wall.

They differ from those of Duhrssen and his followers

1. In that a longitudinal incision is always made.

2. In that the uterus is sutured at a point a little below the fundus.

3. In that the uterus is sutured to the vaginal wall near the urethral meatus.

The very good results, both anatomically and clinically, he had obtained by his modifications, justified him in their continuance and in recommending them to the profession.

"An Explanation Concerning the Preliminary Communication on Citrophen."

By Dr. R. Seifert.

In his preliminary communication that appeared in No. 26 of the *Deutsche Medicinische Wochenschrift* Dr. Benario very evidently intends to claim priority for a medicament composed of phenetidin and citric acid. Such combinations, however, have been used for antipyretic and analgesic purposes in the Warsaw hospitals for many months past, and the results there obtained have been published in extenso by Dr. Leon von Nencki and Dr. Josef Jaworski in the *Gazeta Lekarska* of May 27th, 1895, and the following numbers.

There are various combinations of citric acid with phenetidin, all of which have been prepared by the chemical factory of Dr. F. von Heyden's successors. One molecule of citric acid can be combined with three molecules of phenetidin, giving us citrophen*; but it can also be combined with two and with one molecule. giving us entirely different substances. Nencki and Jaworski have proved that the most useful of these combinations is that which contains the largest number of intact acid groups. This is Apolysin, which contains two camplete citric acid groups.

Apolysin is also the most freely soluble of the series. It dissolves in 55 parts of cold water and in less than one part of warm water. There are metallic salts of Apolysin; but it is the combination with quinine, caffeine, etc., that deserve special attention.

There are errors in Dr. Benario's paper, due possibly to printers' mistakes. But the fact remains that citrophen is very insoluble, requiring no less than 13,000 parts of cold water for its solution.

Apolysin has the following advantages over phenacetin and the other remedies of that group:

*Apolysin is not in any way related to the citrate of phenetidin (citrophen) with which Dr. Trenpel (Deutsche Medicinische Wochenschrift, 1895, No. 33) has experimented. This is poisonous, like all the phenetidin salts; whilst Apolysin is practically non-poisonous, being not a simple salt of phenetidin, but phenetidin permanently combined in an anilid-like form. The addition of carbonate of soda to Treupel's citrate of phenetidin causes the immediate separation of phenetidin as a free poisonous base: but the phenetidin cannot be separated again from Apolysin.

1. It is very soluble, and hence more readily and completely absorbed.

Its action is therefore quicker and surer.

2. There are no by-effects, even when large doses are given, The well-known cardiac depressant effects of phenetidin, which are distinctly seen in phenacetin, are not to be found in Apolysin. This is probably due to the similarity of Apolysin to citric acid, and is in accordance with the law discovered by Professor M. von Fencki (in the St. Petersburg Institute for Experimental Medicine), that the entrance of an acid group in a poisonous substance lessens or removes its poisonous properties. The chemical difference between Apolysin and phenacetin consists in just such entrance of acid groups.

In consequence of its non-poisonousness Apolysin can be given in large doses for the attainment of a marked and rapid antipyretic and analgetic effect with any danger of concomitant effects.

Neuralgia Provoked by Carious Teeth Complicating Healing after Cataract Extraction.

In the October number of The Ophthalmic Record appears a valuable contribution from the pen of Dr. L. D. Brose, describing a case in which the above named complications presented themselves.

The history is as follows: Jane W., forty-seven, presented herself October 15, 1894, blind from matured senile cataract in either eye. The patient stated that her general health had always been good. On October 16th the lense was removed from the left eye under cocaine, a small iridectomy being a part of the procedure.

Healing was rapid, without any complications and vision was good. On October 27th the right lense was removed in the same manner as the left. Patient, immediately after the removal of the lense, counted fingers. All went well for five days, the patient complaining of nothing except that her head was continually going around, a disturbance of equilibrium which she connected with a ride on the elevator on the day of the last operation. By the sixth day the corneal wound had closed nicely, and the pericorneal injection had greatly diminished, when pain set in, in the branch of the fifth nerve supplying the upper maxilla. The neuralgia was remittant in character, was very severe at night, causing loss of sleep, digestive disturbance, but no amount of fever. The eye upon the following day showed an increase in the amount of pericorneal injection, but not in intraocular tension; the aqueous remained unclouded, the iris normal in color and vision clear. Morphia alone relieved the pain and enabled her to rest. On Nov. 13th, 17 days after the operation, a dentist was called in, who removed eight carious teeth. The neuralgia at once diminished in severity, and gradually ceased, the pericorneal injection at

the same time growing less and less, so that the patient was able one week later to leave the hospital and return home. Vision at this time was, with glasses, $\frac{15}{30}$ in left eye and $\frac{15}{70}$ in right. A letter from her physician eight months later states that vision remains good. The lesson taught by this case is that the teeth should be examined before performing any of the serious operations upon the eyes.

Medicated Kefir.

Dr. M. O. Lanzer, of Vienna, has succeeded in effecting an intimate mixture of certain remedies, notably creosotal carbonate of guaiacol, arsenic and iodine, with kefir. They are completely dissolved in the kefir without change.

1. Creosotal and carbonate of guaiacol solutions in kefir. The first occurs in the form of a thick, milky fluid, of a very pleasant acidulous taste and an acid reaction. It has no deleterious action and is well borne even by those of weak digestion.

The writer obtained with these two preparations excellent results in tuberculosis, chronic catarrh of the respiratory organs and in gastric disorders, as chronic catarrh of the stomach, cancer of the stomach, nervous dyspepsia, obstinate vomiting of pregnancy, scrofula, all diseases of the liver in which an exclusive milk diet is indicated, in renal and vesical affections, anemia, chlorosis, in convalescence from severe maladies and in all cases where a sustaining regimen is indicated. The good effects of kefir-creosotal are observed at the end of a few weeks in improvement of the appetite and increase of weight. The rales diminish in cases of catarrh of the air passages, or even completely disappear. In the early stage of tuberculosis dullness takes leave at the end of some months and the expectoration becomes completely free from bacilli.

In affections of the digestive system kefir with creosotal and carbonate of guaiacol acts as a disinfectant, decreases intestinal fermentation and putrefaction, and is decomposed, in traversing the bowel, into creosote or guaiacol and carbonic acid.

The mode of administration is as follows: Every day for fourteen days the patient takes a bottle of kefir, No. 1, containing creosotal or guaiacol carbonate (15 grains of creosotal or 8 grains of carbonate of guaiacol), one-half after breakfast and the remainder in the afternoon, or an hour after supper. During the next fourteen days kefir, No. 2, (45 grains of creosotal or 15 grains of carbonate of guaiacol to the same quantity of kefir) is given and, finally, for two months kefir, No. 3 (75 grains of creosotal or 24 grains of carbonate of guaiacol), is administered; or for one month kefir, No: 3, and one month kefir, No. 4 (150 grains of creosotal or 30 grains of carbonate of guaiacol). In many cases it is well

to alternate kefir and creosotal with kefir and carbonate of guaiacol. For childred only kefir, No. 1, and in moderate doses, should be prescribed.

2. Kefir with arsenic (No. 1 with 3 drops, No. 2 with 4 drops, No. 3 with 5 drops, and No. 4 with 6 drops of Fowler's solution)—This is indicated in all cases where it is necessary to prescribe an arsenical course and nutritious regimen, as in neurasthenia, hysteria, chorea, tabes dorsalis and cutaneous affections.

3. Kefir with iodine (No. 1 with 8 grains, No. 2 with 15 grains, No. 3 with 24 grains, and No. 4 with 30 grains)—This combination may be employed in all cases where preparations of iodine are indicated at the same time with a supporting diet. It is efficacious as a sorbifacient, antisyphilitic and antirheumatic; it gives good results also in scrofula, lead poisoning and chronic mercurial intoxication, and chronic parenchymatous nephritis.—*La Medicine Moderne.*

The Decadence of Opium.

Wendell Reber, A. M., M. D., Pottsville, Pa., Oculist and Aurist to the Children's Home, under the above caption in the Buffalo Medical Journal, writes: "We would not banish opium. Far from it. There are times when it becomes our refuge. But we would restrict it to its proper sphere.

"In the acute stage of most inflammations, and in the closing painful phases of some few chronic disorders, opium in galenic or alkaloidal derivatives, is our grandest remedy—our confidential friend. But here, the application should cease; and it is just here that the sympathetic products step in to claim their share in the domain of therapy.

"Among the latter, perhaps none has met with so grateful a reception as antikamnia, and justly so; for among all the contributions of pharmaceutic chemistry, none so fully merits our confidence as this one.

"Given a frontal-temporal-verticle or occipital neuralgia growing out of an uncorrected ocular defect, it will almost invariably arrest the head pain, until such time as the ocular trouble can be corrected with glasses. In the terrific fronto-parietal neuralgia of glaucoma, or in rheumatic or post-operative iritis, it is of signal service, contributing much to the comfort of the patient; and, I have sometimes thought, exerting an undeniable influence over the ocular disease. In this last group of cases I have seen the most benign effects follow the hourly administration of ten grs. of antikamnia until the pain is relieved. It will seldom be necessary to exceed sixty grains of the drug.

"Its range of application is wide. It is of positive value in certain forms of dysmenorrhœa; it has served me well in the pleuritic pains of advancing pneumonia, and in the arthalgias of acute rheumatism; on several occasions, I have been able to allay with it the lightning, lancina-

ting pains of locomotor ataxia; but nowhere do I employ it with such confidence as in the neuralgias, limited to the area of distribution of the fifth nerve. Here its action is almost specific; surpassing even the effect of aconite over this nerve."

Surgical Treatment of Epilepsy.

Dr. B. Sachs (meeting of the N. Y. State Medical Society) read a paper on the Surgical Treatment of Epilepsy, in which he contended that surgical interference should be restricted to the cases of partial or Jacksonian epilepsy resulting from traumatic injury to the skull or the brain, or to both. Mere statistics were of little value; in former days successful cases were reported and the unsuccessful ones were not recorded. Many years ago the reader, in conjunction with Gerster, reported all of a series of cases operated upon, when it was found that former successes were over-estimated; and that while a few cases were benefitted by trephining, or excission of cortical tissue, the majority were not improved. This is due to the fact that a focal lesion in the brain is followed by secondary changes in the hemispheres, and this altered tissue acts as an epileptozenic body. Since we can not excise all these diseased fibres, excision of the primary forms of disease is not the rational procedure it was once supposed to be. The author repeated his dictum of previous years that the only way to cure epilepsy is to prevent "its development," and to do this the initial injury must be treated promptly.

Special attention was also directed to the partial epilepsies occurring together with infantile cerebral palsies, and the reader insisted that these might be improved by appropriate surgical treatment. While Dr. Sachs believed that the cases should be selected carefully, there were some that could be relieved by rational surgical interference, but each case was to be weighed on its own merits. Indiscriminate operating for the relief of epilepsy is to be condemned.

"On Apolysin and Citrophen with Remarks on the Practical Usefulness of the Phenetidin Derivatives"

By Dr. H. Hildebrand, of Elberfeld.

Under the names of Apolysin[1] and Citrophen[2] two combinations of phenetidin with citric acid have lately been clinically experimented with, and recommended. They differ chemically from one another in this, that in Apolysin one molecule of phenetidin is combined with one mole-

(1). L. von Nencki and J. von Jaworski. (Allg. med. Centralzeitung, 1895, Nos. 60 to 62).

(2). Benario: (Deutsche Med, Wochenschrift, 1895, Nos. 29 and 32..)

cule of citric acid with the production of H_2O; whilst in citrophen, on the other hand, three molecules of phenetidin are combined with one of citric acid, and without the production of H_2O. The relation of citrophen to Apolysin is therefore like that of the lactate of paraphenetidin to lactophenin. And this difference in chemical constitution determines the different physiological action of these two bodies.

My own experiments on rabbits lead me to coincide fully with the conclusions of Dr. G. Treupel (*Deutsche Med. Wochenschrift*, 1895, No. 31[3]), I agree with him in his emphatic warning against the unlimited use of citrophen which is identical with the ordinary citrate of phenetidin.

Apolysin has been recommended on the one hand as a more reliable and more rapid antipyretic and analgesic than phenacetin. In point of fact its poisonousness even when given by subcutaneous injection is much less than that of phenacetin. Even 8 cg. (1¼ grains) was well born subcutaneously by white mice; there was no reaction; whilst even 3 cg. (⅖ grain) of phenacetin was sufficient to call forth the characteristic phenetidin effects.

These experiments demonstrate the innocuousness of even large doses of Apolysin when given subcutaneously, where of course, the product reaches the alkaline tissue fluids immediately. Its ready decomposition in the gastric juice seems to have led its first advocate to claim that its exhibition was contraindicated when the stomach was empty, or when there was hypersecretion. This contraindication need not be heeded if, instead of the strongly acid Apolysin powder, the Apolysin tablets are employed. These are composed of one part of Bicarbonate of Soda and two parts of Apolysin, and they dissolve in water with effervescence. The solution tastes of Bicarbonate of Soda and does not react sour like Apolysin, but slightly alkaline.

The proportions of solubility of the three phenetidin compounds are as follows:

One part of Apolysin requires for its solution 55 parts cold water and less than 1 part boiling water.

One part phenacetin requires for its solution 1,400 parts cold water and 80 parts boiling water.

One part lactophenin requires for its solution 330 parts cold water and 55 parts boiling water.

In the advertisement in this issue, of Theodore Metcalf & Co., of Boston, there will be found an offer that is exceedingly liberal, and one our readers should avail themselves of. It is not often that $15 is exchanged for $5.

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(3). Investigations made at the Physiological Institution of the University of Freiburg i. B.

Alkaloidal Dosimetric Medication.

Treatment of slow (Typho Malarial) Fever and Pertussis,

By W. L. Coleman, M. D.

I hope my professional brethren who read my enthusiastic articles some time ago, advocating Dosimetry, will not think I have abandoned the method because they have seen nothing from my pen for several years. No indeed! Dosimetery is ever reliable and I am thoroughly convinced, from the results at my hands, that it is the only truly safe and scientific method of medication. The older I grow, and I passed the three score mile stone some time since, the less medicine I give, and this exact method aids me much by enabling me to jugulate or abort acute disease in its first stage. I have not had a single case of continued or so called slow fever last over ten days in seven years, while dozens of them every year, all around, have lasted from six to eight weeks in the hands of others.

My confreres say: "Oh, you have been fortunate in not meeting with a case of slow or typho-malarial fever." It would be a most singular and unaccountable circumstance if this was true. I have just dismissed a young lady patient, one of my longest cases, who was in the sixth day of the fever when I was called, and in four days the fever yielded. As her bowels were very constipated, tongue heavily coated and breath bad, I gave her calomel, gr. 1-10, every hour that afternoon, and one granule, gr. 1-6, of podophyllin at bed-time, and the next morning a full dose of seidlitz salt. Then I began the defervescents, aconitine, digitalin and arseniate of strychnine, one granule of each every hour during the day, and, if the fever did not abate, at night also; but it generally declined steadily till mid-night, when the temperature fell to 99 or 100, pulse 90. At 2 a. m. I commenced with hydrobromate of quinine and arseniate of strychnine, a granule of each every hour till 10 a. m., and at 11 a. m. the defervescents were resumed instead. The strychnine was ordered to be omitted every other dose so she would get ten to twelve granules during twenty-four hours.

Her morning temperature at my first visit was 100, pulse 90; afternoon temperature 104½, pulso 120. These were gradually reduced by this treatment (which is my usual treatment for this fever), till they reached the normal, and the patient became convalescent. I consider this a typical case of this so-called slow fever, and if I had been called on the first day it would have been jugulated by the fourth or fifth day, as has frequently been done in other cases.

In the latter part of January I went, as a friend, to see the letter carrier of our district, who had been sick several weeks. "Why, George," I said, as I grasped his hand, "you still have fever!" "Oh, no," said he,

"my physician dismissed me Monday (this was Friday) and said I was well, but I have no appetite or strength and feel that I am growing weaker." Upon examination I found his pulse 100 and temperature 101½. I told him if this was not fever, I did not know what fever was. He said that was the twenty-eight day he had been in bed, and, as his physician would not return unless he sent for him, he wished I would put him upon the dosimetric treatment. I told him I had been practicing medicine for nearly forty years, and had never yet taken charge of another physician's case without his consent, but under the circumstances I would, as a friend, give him a few granules. So I put him upon a treatment similar to the above, with the addition of two granules each of quassin, phosphoric acid and arseniate of soda at meal times.

On Sunday, forty-eight hours after commencing this treatment, his fever was subdued and his appetite had returned. Saturday night his little daughter was taken with all the symptoms of the same fever. He asked me to prescribe for her, and I put her upon the granules. At my visit the next day (Monday). I left enough for ten days, telling the father it would not be necessary for me to return, and that he could send for me if I was needed. Wednesday evening he drove over to my office with his little girl. They were both convalescing rapidly, and have been well ever since. The history of one case is the history of all, and it would be superfluous to report others.

We have had the most extensive and severe epidemic of pertussis during the past spring and summer that I ever witnessed; several infants were suffocated and died during a paroxysm of coughing. Such a termination of this disease should never be allowed to occur when the paroxysm can be cut short and the suffocation prevented by placing one's forefinger upon the root of the child's tongue and pressing gently downward and forward. It is hard to convince the general public that it is unnecessary for children to have this and other contagious diseases, hence I had but few cases in which to try the abortive method; but in eight cases, whose ages ranged from eight months to six years, and who all had the characteristic cough of pertussis in its first stage, I succeeded in aborting the disease and curing the cough perfectly in ten days.

My plan was to give as much sulphide of calcium as each child could bear, and to keep them continually under the influence of atropine sulphate up to near its physiological but short of any toxic effect. To the older children I gave a granule of cicutine and iodoform when the cough was very bad, telling them to keep them on the tongue till dissolved and swallow slowly, without water. To infants under a year I gave a granule of codeine occasionally, especially at bed-time, to quiet cough and procure rest. I never saw such certain and exact results from medicine before in my forty years of practice! Will the doubting Thomases say: "Oh these cases were not pertussis, but a cough from

some other cause"? Strange coincidences, that only the children to whom I administered this treatment escaped the contagion, though surrounded by and daily exposed to it in all the other children of the vicinity who were suffering with the disease.

But as my space is limited I must stop clinical reports, or I will have no room to touch upon the last but by no means least important part of my subject, Granules. When I adopted the Dosimetric Method, I was an enthusiastic advocate for the Burggraeve-Chanteaud granules alone, and had quite a spat with Dr. Abbott upon the subject in the Medical World, but when we got to understand each other rightly we became good friends. He must still permit me to say, I think Chanteaud's granules are a marvel of the pharmacist's skill in their mechanical finish and keeping qualities in any climate of our little globe, and while they have been equalled, they have never been surpassed; but I wrote to Dr. Burggraeve and Chanteaud six years ago that their granules would be superseded by cheaper American products in a few years, for I was patriotic enough to believe that we "tarnal Yankees" could do what other people could and even surpass them in the long run. Dr. Burggraeve laconically replied that "their granules cured and that ought to be sufficient, and that they were cheaper than the old alopathic mixtures and compounds." I am glad to say my prediction has been fulfilled by The Abbott Alkaloidal Co., of Chicago, and I can confidently recommend their granules as equal to any and all, both as to mechanically finish and certainty and exactness of therapeutic effect. I have used them indiscriminately with Chanteaud's the past summer and have observed no difference in therapeutic effect.—*Alkaloidal Clinic.*

Pregnancy in Girlhood.

Spitta has reviewed the clinical history of 260 labours in primiparæ of 18 and under, as observed at the Marburg Maternity. The general health during pregnancy is not worse than the average amongst pregnant women. Delivery before the fortieth week was relatively frequent. The pains are often weak, the labour tends to linger. In many cases of deficient capacity of the pelvis in these patients the defect simply implies that they are not full grown. The most frequent positive evil in relation to labour in early girlhood is laceration of the soft parts. Vertex presentations are relatively frequent. Floodings during labour are common. The mortality of the child during parturition and the first two weeks is not high. The proportion of male births increases with the age of the mother. The forceps is often required. Affections of the mammæ are common. Mortality is by no means high. A history of menstruation coming on early is favourable in a case of pregnancy in a young subject.

Creosote Carbonate in the Treatment of Pulmonary Tuberculosis.

By William H. Bukeman, M. D., of Los Angeles, Cal.

In recommending any remedial agent in the treatment of tuberculosis of the lungs nowadays, one must do so with great reserve, and he should be fortified with such facts as will bear out his assertions. So many medicines have been recommended of late for this disease that even the nonskeptical are becoming shy, and are again falling back on the old empiric treatment. One by one each new remedy has fallen by the wayside for other newer ones to be tried that have come into the market. Of the latter Creosote Carbonate takes its place at the head of the list, and from reports so far I think we are justified in giving it a prominent place in the treatment of the disease. In many cases, however, the physician, the pharmacist, or the patient is more to blame that a remedy fails rather than the remedy itself is of no value. First, we must have a pure drug, then a system in its administration, and finally a dutiful patient to carry out in detail, systematically and thoroughly, everything advised. Without these precautions well followed up, no one should expect to be able to combat so destructive a disease.

In Creosote Carbonate the manufacturing pharmacist has succeeded in giving us a preparation of creosote that is nonpoisonous and non irritant, and capable of being given in doses sufficiently large to produce a general systemic effect without any evil drawbacks. Creosote Carbonate contains 92 per cent. of the purest beechwood-creosote chemically combined with 8 per cent. of carbon dioxid. The preparation is a limpid, oily-looking solution, and remains in perfect solution for some time. As age or conditions of weather grow on it, it partially separates, forming a thickened, cloudy mixture, which, however, is readily overcome by placing the bottle in a water-bath, keeping the water boiling until the temperature of the Cresote Carbonate reaches 210° F., which will sometimes take from twenty to thirty minutes or longer, when it will again resume its perfect normal solution, and remain so for a long time.

The remedy is expensive, retailing at $1 an ounce, by weight. In each of the several cases in which I have given the remedy a careful, systematic trial, every other detail in the treatment as to *diet* and *hygiene* being also thoroughly considered, I have had very marked improvement. These cases, however, were selected, none being in the far-advanced stage of the disease. The objective and subjective symptoms were well marked in all, and all had undergone other treatment by different physicians before coming under my care, as these patients were sent to this climate for their health. Two of these patients were under my care previously, at which time I then pursued an entirely different course of treatment. Both had previously taken creosote, from which they in both instances

received little benefit. While under treatment with Creosote Carbonate they have rapidly improved, and now continue to gain in weight. The advantage of Creosote Carqonate over the plain creosote is that it is completely assimilated, and can be given in much larger doses, and does not produce, in my experience, any ill effects. To prove that the drug is thoroughly assimilated, the skin and the breath eliminate the characteristic odor, and after long-continued use of the drug the urine presents the usual dark color and odor due to its presence in the urine.

The best mode of administering the drug is to drop it in the yolk of an egg, well-beaten up, and taken after each meal and before retiring at night. I also make use of the white of the egg by having it beaten up in a glass of milk, and taken between meals, with or without wine, as desired. I usually commence with 5 drop doses, and increase 1 drop a dose each day until the patient takes the amount necessary to produce the desired effect. When I arrive at the dose from which the patient himself notices marked improvement, I advise the continuous use of that dose for a week or two without increasing it, but then to again increase 1 drop a day for a week, or until marked signs of improvement again show themselves The dose then remains uniform for some time. In this way I have had no reason as yet to give beyond 40 drops, although much larger doses have been given. I should not hesitate to increase the dose up to 60 drops should the indications demand such a quantity.

As an illustration of the efficacy of this treatment I report the following case:

Mr. G., 33 years old, now a real-estate agent in this city, came under my care two years ago. There was a history of tuberculosis in the family. Two years before coming to Southern California he was afflicted with malarial fever, about one year later with right sided pneumonia. A gradual decline in health followed, and he states that after six months his physician advised a change of climate to Arizona, explaining to him that his left lung was also slightly involved. For four months previous to coming here, while in Arizona, he took 10 drop doses of creosote in capsules t. i. d. Under this treatment he did not improve. After coming here he continued the creosote for a short time, and the change of climate resulted in a slight improvement in his condition, but for a short time only. He then discontinued all treatment. It was not long, however, before he again commenced to fail in strength, and his health again broke down. It was at this time that he consulted me. I made a thorough examination, and found the upper portion of the right lung and the apex of the left lung involved, well advanced in what I would term the second stage of the disease. Night-sweats were causing a great drain; there was harassing cough and free expectoration, in which many bacilli were present. I at once advised a complete change in his habits, his diet, hygiene, etc., and put him on 10 drop doses of creosote three times daily,

and good tonics. He improved a little for a time. He was then manager of a clothing house, and in this occupation he was advised to make a change. He went into the real-estate business to do outdoor work. With all changes made for his benefit he did not improve, and about ten months ago he had another attack of pneumonia involving the middle lobe of the right lung. This came near taking him "from this earth of misery," as he expressed it, and it was a great struggle for him to gain strength enough to get about. He lost 20 odd pounds in weight. Under the best of care with the former treatment he made very little improvement in general health or in the condition of his lungs. I then put him on Creosote Carbonate, commencing with 5 drop doses in the yolk of an egg, four times daily, and increased the dose until he was taking 15 drops at a dose. In less than two weeks there was marked improvement, and from this time on he has gained now over 20 pounds, or his former weight. Later he took 20, then 30 drops at a dose, and at present is taking 40 drops, four times daily, and beyond this dose there has been no indication for an increase. In less than two months of the Creosote Carbonate treatment he was able to resume work, and has been at active work every day since; He is gaining in strength and weight daily, and is again encouraged and confident that he may live a long and useful life for the benefit of his wife and four children.

The other cases have done equally as well if not better, but were not in so precarious a condition.

The minor details of treatment I pursue in these cases would require too much space to relate, but I would state that the personal habits of every patient are thoroughly investigated in every detail and all faults corrected, so that the patient actually lives a new life.* The Creosote Carbonate I hold, as it were, in reserve, and do not give it promiscuously.

In conclusion it may be said that although this climate is no doubt a helpful agent in the treatment of patients with pulmonary tuberculosis in its earlier stages, yet under other treatment they do not always show very marked gain, or what gain there is in many instances not continued; *but under the Creosote Carbonate treatment the gain is of a more strengthening charrcter and apparently will prove permanent.*

Tetanus.

A case of tetanus is reported as having been cured by hypodermatic injections of solution of carbolic acid, two per cent. Twelve drops were injected every three hours until twenty-eight had been given. The recovery was complete in every particular.—*Journal of Practical Medicine*

*See article on "The Hygienic and Dietetic Treatment of Consumption, with Reference to Southern California Climate," by Wm. H. Dukeman, in New England Medical Monthly, November, 1895.

The New Works of Science.

As the proud nineteenth century draws to a close it would seem that its representatives have good reason to be proud of the legacy to be left by them to succeeding ages. The last century saw the infancy of the steam engine, saw the isolation of oxygen gas and of a few other substances in the field of chemistry, and that is nearly all in science given to the present age by its predecessor. Before 1800 the cities of the world were still lighted by lamps and candles; electricity had its highest develment in the inefficient frictional electric machines; railroads and steamboats were not yet a factor in transportation, and even the roads of England had but begun to be made; the adage that there is nothing new under the sun applied with full force to the few achievements in science of the world one hundred years ago.

Then the nineteenth century commenced. Gas lighting was introduced and the nocturnal crimes of great cities almost ceased. Lavoisier's and Priestley's discovery of oxygen began to bear fruit, and modern chemistry, which is a little over a century old, gradually took a position in the world of science. The galvanic battery gave strong current electricity, Sir Humphry Davy produced the electric light and the metals of the alkalies; the steamboat, locomotive and telegraph came into existence, and for a time it seemed as if man had all he could attend to in developing the new discoveries. Faraday's investigations led to the invention of the magneto generator; slowly the idea of a self-exciting dynamo was developed, and slowly enough the world awoke to the idea that the old prophecy of Goethe, the electricity only applied to the smaller business of life, might be falsified. Then, just as the use of currents of electricity of engineering dimensions was being developed, the almost imperceptible but delicately governed induced current was made to produce the transmission of speech: so that now, in our utilization of the thousand horse power units of electricity for engineering work, and of the minute, almost absolute units for telephonic work, we seem equally to avail ourselves of the colossal and of the microscopic powers of electricity.

The assertion of the progress in science of this century is not needed, and a year ago it would have seemed trite enough to have exalted its achievements. But now, within a few years of the new century, and all within the space of a few months, developments and discoveries, few in number, but of importance enough to fairly overthrow all our ideas of the limitations of man's power, have been thrust upon us.

The subject of the liquefaction of gases has long been a fascinating one for the physicist and experimenter. Chlorine and carbon dioxide were among the first, a number of years ago, to succumb to pressure, and after awhile scientists established two classes of gases, the fixed and the liquefiable gases. This division no longer exists. All the elemental

gases have been liquefied, and the apparatus has been so perfected that with comparatively simple appliances, and in the space of ten minutes, liquid air can be collected like water in an open vessel, and the assertion has been made within a few months, by one of the best qualified investigators of the world, that in the near future liquid air will probably be the great source of artificial cold. Even more wonderful is the liquefaction of air produced by the cold due to its own expansion, which has been accomplished recently on what may be termed the commercial scale. We may within a few years see liquid air supplied and used by the liter like any common chemical.

The old time gas engineer produced hydrocarbon gases from hydrocarbons prepared in preceding geologic ages by the mighty forces of nature working through the quiet agency of the profuse plant life of the carboniferous and other eras. The dreams of the advanced technologist, who recognized the crudeness of the coal gas and water gas processes, the latter seeming but slightly an advance over its predecessor, would sometimes take the shape of the future synthesis or direct combination of carbon and hydrogen. If this could be done on the large scale, gas making would stand upon a new and scientific footing. The later triumphs of chemistry are largely in this field of synthesis, and now, in the direct production on the large scale of a hydrocarbon, chemistry has distanced its greatest achievements of the past as far as the technical field is concerned. Acetylene will always remain one of the milestones of the world's progress. Its production is due to the development of the dynamo—it is a gift made by physics to its sister science, chemistry.

The analysis of air was early attempted, and has been made so often that it seemed as if its composition was settled forever. It was always treated as of fixed composition, no variation being found in it wherever collected, unless artificially contaminated. But within a few months the world of science was startled to hear that an element hitherto undiscovered was a constituent of air, and that its composition had never been correctly determined ; the new analysis showed the existence in air of the strange neutral element, argon. Argon and acetylene represent triumphs of the opposite branches of chemistry—of analysis and of synthesis respectively.

And now the world is electrified over a new discovery exemplified by the reproduction of an image of an object through opaque screens by hitherto unknown rays—we allude to Roentgen's discovery of X ray photography. Science had accepted the undulatory theory of light ; it had, by referring light phenomena to wave motion of the luminiferous ether, accounted for all the actions of light, a mathematical explanation of refraction and reflection had been reached, and the undulatory theory of light seemed to include actinism or photography. Since the beginning of the present year the epoch making work of Roentgen has been pub-

lished, and it presents no greater degree of achievements than it does of mystification as its affects the theory of light.

No age has ever witnessed such a succession of triumphs of science in so short a time. The effect of the cumulated wonders is to prepare us for any revelation of science—to almost dangerously increase our powers of belief. They make it harder than ever to discern and fix the true limits of natural science. To the working scientist, the discoveries are an inspiration, for they show him that the extreme elevation of universal knowledge has not yet been reached; he still has heights of discovery to climb, of altitudes unimagined seriously by the world of but a decade ago. The synthesis of carbon and hydrogen, the liquefaction of air and hydrogen, the discovery of argon, and the discovery of X ray photography, will add new luster to the names connected with the work. Rayleigh, Ramsay, Dewar, and Roentgen among the pure scientists, and Wilson and Linde among the technologists, will have their fame increased by the renown which their achievements will impart to the expiring nineteenth century.

Sudden Death due to Spinal Puncture.

Furbringer (Bristol Medical Journal) refers to the eighty-six cases of spinal puncture already published by him. four of these cases death occured unexpectedly, all within two days, and two within two hours of the puncture. It was, however, impossible to say definitely then whether it was really a question of cause and effect. The author now records a further case fatal on the day of the puncture. A man, aged 29, had suffered from headache of varying degree, frequent vomiting and unsteady gait. Lately the headache had been very severe. There was commencing choked disc in the right eye. After the failure of other treatment spinal puncture (without aspiration) was practised to relieve the headache. Fifty c.cm. of clear fluid were drawn off, but the pain in the head increased. The patient became apathetic, and six hours later died of respiratory paralysis. There was a large cerebellar tumour, and the cerebral ventricles were greatly dilated and contained a large quantity of clear fluid. There was very little fluid in the spinal subdural space. Thus in three cases of intracranial tumour and two of uræmia the author has seen death occur within forty hours after spinal puncture. In Lichtheim's fatal case there was also a cerebral tumour. Thus in these cases of tumour there seems to be abundant evidence to show a causal connection between the puncture and the death, but in the cases of uræmia no positive statement can yet be made. The author then discusses the cause of death, which he does not think can be solely assigned to the changes in pressure. He warns against spinal puncture in cases of intracranial, and especially cerebellar tumours. erhaps the drawing off the fluid in small quantities on

different occasions might be harmless. A lasting improvement cannot be expected. Quincke and Ricken have only once seen a slight improvement in their cases of brain tumour, and they point to spinal puncture as being of value chiefly in acute serous and sero-purulent meningitis.

Serotherapy in Infection by Pyogenic Micro-organisms and Erysipelas.

Parascandolo (Bristol Medical Journal) as the result of an extensive series of experimentaton on the above subject, finds that with an antitoxic serum prepared by a method similar to that of Roux and Yersin but shortened by the author, he is able to cure or to immunise animals exposed to streptococcal and pyogenic infection. The cultures at first acid, acquire their highest toxicity later, when they become alkaline. The cocci were best cultivated in a saccharated broth. Dogs, rabbits; and guinea-pigs could be immunised, but the first named animal made the best subjects. The immunity was not permanent. The serum of the immunised animals has a neutralising property *in vitro*. Intrauterine injections of cultures of streptococcus erysipelatis gave rise to no pathogenic results if the mucous membrane was intact, but if this was previously wounded by mechanical or chemical means, then similar injection gave rise to symptoms of purperal fever. Further, injections of antierysipelatous serum had a curative and preventive power against puerperal febrile processes unless these were so far advanced as to poison the whole organism.

The Danger of Stoves.

A peculiar occurrence connected with the escape of fumes from a stove which might have resulted in a number of deaths is reported from Erlenbach Germany. It appears that a school teacher had left his pupils, about eighty in number, for a short time in the schoolroom with the door locked. On his return he found them lying about the forms and on the floor in a comatose state owing apparently to the fumes from the stove escaping into the room instead of up the stove-pipe, a circumstance which is stated to have been due to the closing of the door and the consequent shutting off of a proper draught. The pupils quickly recovered on being led into the fresh air, and after the poisonous air in the room had been swept out by opening the windows they resumed their studies. The stove was probably of the closed type commonly used on the Continent, and under the conditions just narrated it is probable that the toxic effects were due to carbon monoxide and to the depletion of oxygen by the substitution of carbonic acid gas. It seems odd, however, that the pupils had not the intelligence to open the windows themselves as soon as the air was found to be objectionable. But the produbts of imperfect combustion are stealthy poisons.

Chorea.

The connection between chorea and acute rheumatism is close and frequent. The only question that arises is, how close and frequent? Rheumatism is the only general disease or fever with which chorea has any such association, with the single exception of scarlet fever, and that in infinitely less degree. Scarlet fever, moreover, significantly enough, is the one fever especially associated with acute rheumatism. Cases of chorea after measles and after diphtheria have been recorded by Dr. Henoch, but they are at least events of extreme rarity. I have never seen them, or a whooping-cough chorea, or a mumps chorea, or a typhoid chorea; and the scarlet fever chorea is almost certainly a rheumatic chorea.

The chorea of pregnancy likewise must be regarded chiefly, if not solely, as a rheumatic chorea, since in the majority of cases it occurs either associated with rheumatic fever or in patients who have previously had rheumatic fever or chorea. In fatal cases endocarditis is almost invariably found *post mortem*. In 34 cases of chorea gravidarum collected by Dr. McCann there was a history of previous rheumatic fever in 13, and in 11 more of previous chorea.

Chorea is especially associated not only with acute rheumatism of the joints but with endocarditis, with pericarditis, with erythema multiforme and nodosum, and above all with the special pathognomonic rheumatic symptom, the evolution of subcutaneous nodules.

Chorea may appear in relation to one or more of these, as for instance with nodules and endocarditis, without any concurrent or antecedent affection of the joints. The association with pericarditis without accompanying arthritis of which I have seen several instances, is exceedingly significant.

Again chorea which occurs apart from any other rheumatic manifestation at the time is sometimes followed, instead of being preceded, by an arthritis or other rheumatic feature which indicates its connection with rheumatism. Moreover chorea, even when unattended by any other rheumatic symptoms, is especially liable to occur in members of families in which rheumatism is rife. One may have articular rheumatism, another erythema, another endocarditis, another chorea. Any of these may occur alone.

The Clinical Thermometer.

What is the use of a thermometer, anyhow? Does it give a better idea of what is the cause of the trouble? Are the symptoms on which a diagnosis turns explained? Does it tell you why the skin is cool and the pulse 110 or 120, or, when a woman is raving with pain resembling neuralgia of the bowels, that it is or is not impaction? Then, what does

it do? One thing it does—it seems to mystify the gullible public. "Taking the temperature" seems to have some satisfactory effect on the minds of the friends of the sick. "Temperature, doctor says, is 103.45°. That settles it—he is sick, bad sick."—*General Practitioner.*

The Etiology of Malignant Tumours.

Roncali is Corselli, Frisco and Robert (London Lancet) discuss the etiology of malignant tumours, but from different points of view. Whereas Roncali, Corselli, and Frisco consider them as caused by blastomycetes, following Sanfelice, Ribert seeks to explain them upon a modification of Cohnheim's original theory. Roncali found blastomyeetes in large numbers in a case of adenocarcinoma of the ovary, and gives in detail the microscopical appearances present. He also found in each of five sarcomata from three different regions of the body, which had very different histological and clinical features, that parasitic forms were present in small or large numbers, and these forms were very similar to those described by Sanfelice and by himself in the adenocarcinoma of the ovary. They stained in the characteristic manner, withstood acids and alkalies, were found inside and outside cells, expceptionally inside the nuclei of cells, multiplied by gemmation, and were divisible by their general appearance and staining reactions into young and old forms. In the same number in which appears Roncali's paper on adeno-carcinoma of the human ovary. Corselli and Frisco describe a human case in which blastomycetes were the cause of a malignant tumour. Hitherto it had only been known that new growths were produced in the lower animals by inoculation with blastomycetes. The last-mentioned authors obtained during life and after death from a case of sarcoma of the mesenteric gland the organism in pure culture, and succeeded in producing by inoculation similar growths in animals. The micro-organism was cultivated first of all, and formed colonies on fucus (neutral or alkaline), after which it could be transferred to, and would grow in, bouillion gelatine, simple agar, glycerine agar, and glucose agar. No result was obtained with any other culture medium. The characteristics of the colonies are given in the original. Guinea-pigs, rabbits, and dogs were used for inoculation, and the milky fluid of the glands from the human case, as well as the pure cultures, were injected; 5 c.cm. of the milky fluid or 2 c.cm. of a ten-day-old broth culture killed guinea-pigs in twenty-five to thirty days. The animals wasted very considerably, and at the necropsy was found enlargement of mesenteric and inguinal glands, the glands being the size of a nut. The microscopic appearance in the human and in the experimental cases were practically identical. Ribbert regards tumour formation not as dependent upon some aberrant embryonic cell or mass of cells, as Cohnheim suggested, but as dependent upon a setting free of the cells

from the organic connection whether in embryonic or in extranterine life. The isolated mass of cells grows by its own inherent power so long as the cells of which it consists are capable of growth, are placed in suitable surroundings, and meet with no excessive interruption in their nutrition. It is independent, and forms a tumour which, according to the size and the organisation of the primary isolated mass, agrees in the chief points of its structure with that of the organ from which it originally sprang, or more or less completely differs from it.

Urotropin.

By J. A. Flexner, M. D.

The favorable reports that have come to my notice regarding Urotropin lead me to think that some additional facts concerning it may not be amiss. Urotropin is a derivative of formic aldehyde, and not a coal-tar product. The well known antiseptic and preservative power of formic aldehyde in solution led Nicolaier of Gottingen to use the solution of formic aldehyde, containing 40 per cent. of the gas, and known as formalin, as a means of preserving specimens of urine from decomposition pending examination. He noticed that neither uric acid nor the amorphous urates were deposited, though the same specimens not treated with formalin deposited either or both, as the case might be. Even when already precipitated, these substances underwent solution when formic aldehyde was added to the specimen. Urines that readily deposited large amounts of uric acid when acidulated with a mineral acid, did not do so when a sufficient amount of the preservative was added.

The result of these investigations prove very conclusively the great uric solvent power of formalin. The reputation of the lithium salts as uric acid solvents is caused by the common error of applying the results of laboratory experiments to practical therapeutics. The fact that lithium forms an insoluble phosphate, and that the blood and urine contain considerable amounts of soluble phosphates, show that lithium salts, given by the mouth, must form insoluble phosphates of lithium long before they can combine with the uric acid. In this respect it is no exception to the chemical law that when the ingredients for the formation of an insoluble body are present in a mixture, this body will always be formed. Medical opinion has for a long time attributed the success attending the use of the lithiated waters to the water, and not to the lithium that they contain. A similar error obtains in the case of some more recently introduced substances, lycetol, lysidin, etc. They do not, in the urine, from the very soluble uric acid combinations that they do outside the body. Formic aldehyde being too irritating to be taken internally, Nicolaier then determined to try its amine combination as a substitute.

This substance, hexamethylenetetramin or Urotropin, is non-poisonous even in considerable quantities, is unirritating, very soluble in water, and is a good a uric acid solvent as formic aldehyde itself.

The name Urotropin was given to it on account of the changes which its administration brought about in the urine. Alkaline and putrid urines, containing mucous in excess, pus and pus organisms, uric acid or amorphous urates, were rapidly restored to a normal appearance and an acid reaction. The urine was sterilized, and increased in quantity, and calculi and deposits were dissolved. Hence Urotropin is a most valuable resource in all suppurations of the urinary tract, and in all gouty and rheumatic conditions where an active eliminant of uric acid and its salts is indicated. A further valuable property of Urotropin is its faculty of combining readily with salicylic acid and forming a soluble combination. A solution containing from ten to fifteen grains each of Urotropin and salicylic acid to the fluid ounce of water or other suitable vehicle has the further advantage over the salicylates alone in that its taste is not disagreeable. It appears to be far less irritant to the gastric mucous membrance than solutions of salicylic acid ususally are, and the combination promises to have a wide range of therapeutic usefulness.

Dr. C. F. Tucker of Syracuse N. Y. Jany., 9th, 1896 writes: Some time ago when I was doing a country practice at Jordan, Onondago Co., N. Y., I wrote Messrs. Battle & Co., that I could not get the uniform results from Bromidia that I had previously. They sent me a 4 oz. sample and that was all right and I still have on hand a little of that particular sample.

The party who had dispensed my prescriptions, after I had expressed my opinion very strong, confessed that *he had purchased a considerable quantity of a Mixture at a less price, said to contain exactly the same ingredients, and had been dispensing that when Bromidia was prescribed.*

After that I had no more trouble, and I can truthfully say that you can find it in my emergency case, office, and in my regular "grip" always and I have never seen anything but perfect satisfaction attending its use, and I have given it to patients of all ages and about every condition.

I have used it in the last stages of pulmonary tuberculosis, and in severe cases of chronic bronchitis, in delirium tremens and etc., and I always use it when I want a certain hypnotic.

I have used it in doses from two minims up to 2 and 3 drachms. It is one of the mixtures of so-called treacherous chloral that has never, thus far, caused alarm. I have been familiar with Bromidia since away back in the 80s when I was a clerk in a drug store, and since I have been practicing I still regard it as a reliable old friend, and so it has proved on many occasions.

The Causation of Face Presentations.

In an exhaustive monograph Dr. Roberto Muggia discusses the various alleged etiological factors in face cases, and gives in a tabular form the details of 41 such labours. The frequency with which these confinements occurred was once in 137 cases (41 in 5644 labours), and of the 41 instances met with, in 25 the chin of the child was to the back and right side, in 2 it was to the front and right, and in 5 it lay transversely and to the left. Amongst the fœtal causes for the presentation found by Muggia were fœtal struma, coiling of the cord round the neck, dolicocephaly, absence of the cranial vault, small size of the fœtus, oblique position of the fœtus, maceration; increase in the biparietal diameter, abnormal size of the head, abnormal shortness of the neck, and the female sex. The maternal causes included repeated pregnancy, hydramnios, uterine obliquity, uterine tumours, low implantation of the placenta, and pelvic contraction. In addition to the causes given in this already long list the author adds those that have been advanced by other writers, but which he has been unable to confirm. It would seem that the fœtal causes are the more important, and heredity may even come into play. A practical conclusion is that, if a face case evidently represents the expression of given anatomical conditions, maternal and fœtal, the intervention of the obstetrician is in the great majority of cases unnecessary. The genu-pectoral position of the patient in labour is advisable in order to aid the rotation of the chin. All external and internal manual interference should be undertaken only in definitely ascertained cases and under certain circumstances, for the fœtus which presents by the face will often come safer thus into the world than if its presentation is modified. In only one of the author's cases was an asphyxiated infant not resuscitated. Of course, it would be absurd to say that a face case is more favourable than a vertex; at the same time, in the circumstances, presentation by the face may be a natural way of escape.

The Diagnosis of Syphilis of the Nervous System in the Adult.

Dr. W. B. Pritchard, of New York, (Gaillard's Medical Journal) says: "To summarize, briefly, these various diagnostic symptoms in syphilis of the nervous system—we have headaches, characterized by nocturnal exacerbation, associated with insomnia, present during the first half of the night; vertigo with the headaches, sometimes amounting to transient unconsciousness; tremors, paresthesiæ, and weakness, often affecting a limb which is afterwards paralyzed; a general condition of profound subjective physical weakness and mental sluggishness, with final paralysis of one or several muscles, erratic in distribution, usually of gradual onset, varying in degree from day to day and occurring at night—the headaches and insomnia disappearing, as a rule, immediately upon the onset of paralysis.

This combination of symptoms occurring in a middle-aged adult is as nearly positive evidence of syphilis as a cause as is any axiom in medicine. Should there be in addition an admitted history of infection or concomitant lesions in the skin, bones, or viscera, the diagnosis is positive. The therapeutic test is of value—great value—but it is not absolute. I have seen cases of non-specific tumour and of tubercular meningitis very greatly improved temporarily while taking mercury or iodide of potassium. It is scarcely necessary to emphasize the necessity for exclusion in making a diagnosis of syphilitic disease of the nervous system. The factors of age and sex are of importance, especially in exclusion, since the disease is more common in men, and the age of 25 to 40 represents the period of life in which syphilis of the nervous system most often manifests itself. The diagnostic data enumerated are applicable to all forms of central specific disease of the nervous system, both cerebral and spinal, though less constant in the spinal cases. Syphilitic disease of the peripheral nerves alone is rarely observed. The explanation, to my mind, of the fact that these symptoms are common to both cerebral and spinal syphilis lies in the belief that we do not meet with disease of either brain or cord alone, but that in all cases both are involved, though in varying degree, of course. Producing disease of the nervous system, as it does, through the medium of the blood vessels, syphilis is never limited to a circumscribed area, and this is true even when a post-mortem reveals by gross examination only a single gumma. I have seen headache and insomnia with vertigo precede for several weeks a paraplegia due to a specific meningo-myelitis, not associated with any local cerebral symptoms whatever. I have found these same symptoms present in the early histories of four cases of locomotor ataxia, and I do not believe that syphilis produces symptoms of organic disease of either brain or cord alone, but that in all cases both are more or less involved, usually through the blood vessels supplying the meninges primarily."

Apparent Cure of Phthisis.

Dr. Wm. Pepper (*Univ. Med. Mag.*,) records the case of a woman with a strong taint of hereditary tuberculosis, who at the age of 21 rapidly developed an acute type. The sputum amounted to 8 fluid ounces daily, and contained myriads of tubercle bacilli, hundreds being seen in one field. There were signs of consolidation at the right apex and left base. She was placed upon a diet of egg albumen, which was forced, so that she was soon taking daily the albumen of two dozen eggs. The medicinal treatment consisted of $\frac{1}{100}$ gr. of strychnine nitrate with $\frac{1}{1000}$ gr. atropine sulphate hypodermically every two hours, and $\frac{1}{50}$ gr. strychnine nitrate, with $\frac{1}{12}$ gr. double chloride of gold and sodium and $\frac{1}{2}$ gr. of a vegetable digestive every two hours by mouth. After a few days the amount of

gold and sodium was increased to $\frac{1}{8}$ gr. every two hours. She was given cod-liver-oil inunctions and general message with passive movements once daily. She suffered at first from incipient strychnine poisoning, but after awhile came to tolerate the drug, which was pushed to the border line of its toxic action. In two months she had regained her normal weight, 125 lbs., the expectoration had become scanty and free from tubercle bacilli, and the physical signs had disappeared, except for some harsh breathing in the affected situations. She was sent to the mountains, where she returned to normal diet and continued her general treatment. Four months later the patient came back to town in perfect health and weighing 132 lbs. She remained well for two years, when she had a slight attack of pneumonia at the left base. The sputum was crowded with pneumococci and tubercle bacilli. The disease subsided by crisis on the eighth day, and the patient was sent to the mountains a few days later, only to return in ten days with all the symptoms of her attack of two years before. There was consolidation at the left base, and the weight had already fallen to 111 lbs. The sputum was abundant and crowded with tubercle bacilli. She was placed on the same treatment as before, and in a month was sent to the mountains well and weighing 124 lbs. Pepper calls particular attention to the sudden onset, quite like acute miliary tuberculosis, the immense number of bacilli, the rapid cure with acute reappearance after two years as the result of a pneumonic attack at the vulnerable left base, the speedy disappearance of bacilli and consolidation in this recrudescence. the absence from the treatment of all cough medication and antiseptics, and the large doses of strychnine nitrate and double chloride of gold and sodium with which the system was kept literally saturated.

The Perils of Hysteropexy.

Gottschalk (London Lancet) brought before a German obstetrical society last November a pathological preparation illustrating the earlier stages of "cure" after hysteropexy, the patient having died on the seventeenth day from an accidental complication. An ovarian tumour was removed, apparently without trouble; and as the uterus was found to be retroflexed, its fundus was sewn to the parietal peritoneum. The serous coat was not vivified or dissected off before the fundus was drawn against the abdominal wall. Gottschalk reports farther that convalescence was undisturbed till the ninth day. On the seventeenth day the patient got up, though strongly forbidden to do so, and fell down dead in consequence of pulmonary embolism, which had been unilateral. After death embolism of both pulmonary arteries was detected, the second attack following the patient's imprudent act; the first seems to have come on through moving the patient too soon. The fundus was found firmly adherent to the parietal peritoneum; the abdominal incision had healed perfectly.

Anthrax Antitoxin.

Marchoux (The Hospital) has carried out a long series of experiments on rabbits and sheep with a view to determining the relative value of serum therapeutics and vaccination in the treatment of anthrax. He finds that intravenous injections of small dosss of virus are not more severe than subcutaneous, but large quantities are far more lethal when given by the former method. Furthermore, a sheep vaccinated by the ordinary method is refractory to a considerable dose of anthrax, but its sernm has little prophylactic and absolutely no curative power. To develop the latter it is necessary that the animal be immunized to a very high degree so as to resist enormous doses of virus inoculated at frequent intervals. The curative power of the serum is most marked at about fifteen days to three weeks from the time of inoculation, after which period its activity rapidly diminishes ; once drawn the serum retains its power very well. By intensive inoculation of sheep a serum can be obtained having distinct prophylactic properties. These are not as yet very considerable, but Marchoux hopes to increase them by the use of larger and more refractory animals, such as horses and asses. He finds that the amount of serum required to prevent death varies with the seat of injection of the virus into the animal, being least when under the skin of the flank, and successively increasing as the skin of the ear, the peritoneal cavity, and the veins were inoculated. The rabbits experimented on, though preserved from death, were not vaccinated, but invariably succumed to a second dose of the virus. With regard to the curative properties of the serum, that obtained from rabbits was not found strong enough to avert death, but that from sheep was effectual if given in sufficient quantity and before the appearance of œdema. The immunity pro duced by this serum was found to be extremely superficial and evanescent; that resulting from vaccination is, on the other hand, both complete and lasting. The action of the former appears to depend upon a temporary increase of phagocytosis ; this also is much more marked and persistent in vaccination by means of attenuated virus. The immunity acquired by the latter method can only be overcome when the general condition is enfeebled, as by pregnancy or exposure to cold.

Changes in the Nervous System in Diphtheria.

Pernice and Scagliosi examining the nervous system in cases of death in the early stages of diphtheria find that the principal changes are to be seen in the brain, the cerebellum, spinal cord and nerves (the sciatic) being affected to a lesser degree. In the sciatic nerve there was no true alteration of the fibres, but merely a hyperæmia of the perineurium and endoneurium. Most of the changes seen in the brain were referable to

more or less grave disturbances of the circulation or parietal vessels; inflammatory or degenerative changes with hæmorrhage; atrophic degeneration of the cells of the cerebral cortex and anterior horn of the spinal cord especially affecting the protoplasmic prolongation of the cells. Similar initial changes were seen in Clarke's column. The authors believe that the point of departure of these changes is to be found in vascular changes due to the diphtheritic toxin circulating in the vessels.

Thyroid Feeding.

Eulenburg (British Medical Journal) draws attention to the abuse of this treatment owing to the unrestricted sale of thyroid preparations, and especially tablets. Since the investigations into the use of this agent in the reduction of obesity it has been adopted by many of the public, and especially women, without medical supervision. The author relates such a case in which a well-known artist had taken as many as six tablets in the day, whereas two tablets should only be administered, unless in exceptional cases, when the results should be carefully watched. Very severe nervous and cardiac symptoms ensued, and a loss of 19 pounds in weight within two months. These symptoms were apparently due to a hydræmic condition of the blood without visceral lesions. Restrictions should be placed upon the sale of these thyroid preparations, as well as upon some other of the newer drugs.

On page 475 of Professor A. Jacobi's "Therapeutics of Infancy and Childhood, 1896;" will be found the so-called antitubercular treatment, in which the author corroborates his remarks in the "International Medical Magazine," November, 1892, and "Transactions of the American Clinatological Association, 1892," and quotes:

"No one treatment of all forms of tuberculosis ever satisfied me to the same degree as has that with Guaiacol. If the taste be objectional, the Carbonate of Guaiacol, an almost tasteless powder, may be substituted in three or four daily doses of one to three or four grains each. Both of these preparations, particularly the latter (Guaiacol Carbonate), may be combined with other drugs according to indications."

Smooth-Bore Telescopes.

Boys are often accused of a polite willingness to give a great deal of information about things which they know next to nothing about—and sometimes the accusation is true.

A city boy took a country cousin of his to look at the telescopes at a college observatory.

"With these," said the city boy, "they can see ninety billions of miles, and they're only common smooth-bore telescopes. If they were rifled they'd carry twice as far!"

Ammonol in Fevers.

By John J. Sullivan, M. D.

Ever since the days of the distinguished Graves, whose enlightened intelligence gave birth to that famous maxim, "He fed fevers," has the medical mind been diligently in search of a remedy which will produce pyrexia without diminishing the power of resistance of the patient. A medicine which cannot secure this desirable result is, in effect, from whatever point of view it may be considered, a pure unalloyed evil, instead of what some are pleased to regard it, a common mixed good.

During the past quarter of a century, ever since the thermometer has become an essential instrument of precision with the physician, antipyretics have played a more prominent part in the clinical treatment of disease than at any previous time, one it is in all probability due to the fact that by means of this valuable little instrument we are more accurately able to determine the precise effects of antipyretics on the body temperature. If we admit the truth of the universally-accepted statement that high temperatures produce destructive metamorphosis of tissue, we are, of necessity, forced to recognize the great importance of reducing hyperpyrexia in all febrile diseases. If the premises be admitted as true, the conclusion by any process of reasoning known to common sense be controverted. Under such circumstadces, the physician is justified—not only justified, but bound by every law of honor and honesty, to give his patient the benefit of the agent best qualified to produce the most satisfactory results.

According to Liebermeister, and other writers of equal prominence in medical knowledge, the symptoms which generally render a prognosis unfavorable are those which refer to a high range of temperature, but when depressing antipyretic measures are used to bring about temperature reduction, it naturally follows that this reduction is secured at the expense of the vital forces of the patient, and the eventual chances of recovery are thereby materially diminished.

It is a matter of common observation with physicians who are engaged in clinical practice that where the hyperpyrexia has been of long duration; the daily employment of antipyretics like antipyrine and phenacetine, which are essentially depressant in their action, are often followed by various nervous phenomena and unmistakable evidences of marked heart failure. A reduction of temperature secured at such a cost as this is a matter of serious consideretion to the physician, and appeals at once to his understanding and high sense of justice. This is the language of common sense, and needs no argument to support it.

A new antipyretic, known by the name of Ammonol, has been lately added to our theapeutic resources. It differs essentially from all other

antipyretics, for it contains in chemical combination ammonia in active form, which gives to it a stimulating, instead of a depressing action on the vital functions of the patient. It is styled in chemical nomenclature Ammoniated-Phenylacetamide, and is a product of the Amido-benzene series (C_6 H_5 NH_2).

The therapeutic value of ammonia is well known to every physician. It stood the crucial test of clinical experience, and has come out triumphantly, stripped of none of its clains to generous recognition as a volatile stimulant.

As the lives of the best of us are spent in choosing between evils, and as I had tried for the reduction of hyperpyrexia the various coal tar products that had been recommended to me for this symptom, with results that were anything but satisfactory, I was induced by a physician in my vicinity to give this new coal-tar product, Ammonol, a fair trial in the next case of fever that occured in my practice. This I did; the patient was a young man with a condition I diagnosed as a low form of typhoid-malarial fever. I had frequently treated this condition with other coal-tar products, and now determined to give Ammonol a fair trial—to test its therapeutic usefulness to condemn it immeasurably, or take it to my bosom forever. I gave the patient five-grain doses of Ammonol at nine A. M. and four P. M. on the same day and compared the condition of the pulse with that of the former cases in which I used the other antipyretics. In this case, there was a marked reduction of the pyrexia, with no depression, and with a good, strong pulse. There was no symptom of nausea, but the dose was followed in about ten minutes by a gentle perspiration, which the patient described as "feeling much better." The temperature fell from 104 to 99, and remained so for some hours until four P. M. I noticed a tendency to again rise, and repeated the same dose with beneficial results.—*Medical Summary.*

The Treatment of Diphtheria with Diphtheria Antitoxin.

Dr. Edwin Rosenthal (Transactions of the Philadelphia County Med. Society) presented a paper on this subject. After a historical review of the different experiments that led to the discovery of the serum treatment of diphtheria, Dr. Rosenthal described the method of its preparation, and its use. The antitoxin serum is used as a curative or immunizing agent by subcutaneous injection into the tissues of the body. The parts chosen were in the back, between the scapulæ, on either side of the vertebral column, through other parts of the body as the lonis, groins or the side of the chest have been selected.

The parts were cleansed with alcohol soaked on sublimate cotton as gauze; the injection made at one time with a suitable syringe; and after injection the parts were soaked with iodoform collodion.

The quantity injected depended upon the severity of the case and the day of the disease when the injection was made: If in the first two days and the injection mild, 600 units were injected. If, however, the case was more severe, as in the laryngeal variety, as after two days, 1,000 or 1,500 units were injected. These injections were repeated if necessary in 12 to 24 hours. After injection, if the pulse and temperature declined, no more antitoxin was given; but if the symptoms continued, or became more urgent, larger quantities of the serum were injected until the characteristic decline took place. Dr. Rosenthal chose his dosage in units for the reason that so many different antitoxins were sold. He had used Behring's, Aronson's, Gibier's, Roux's, Solis-Cohen's and Mulford's, and each variety represented a different strength, 1 c.c. (about 15 drops) representing 60, 100, or 150 units, it was, therefore, easy to use the required dosage if the strength of the antitoxin was known. For instance, an injection of 1,000 units of Mulford's antitoxin would require 10 c.c. at a dose, and so on.

Dr. Rosenthal studied his cases to see if any evil effects were noticed in the use of the serum. For that purpose he studied the views of those antagonistic to its use, and from the replies he obtained, and his own experience, he found that the so-called evil results did not exist, and where such untoward results were obtained it was more the fault of the manufacturer than of the serum.

Dr. Rosenthal presented his own statistics, as well as the statistics of others that had used the antitoxin. Also various cities and hospitals.

In his own work the diagnosis was verified by culture tests made by B. Meads Balton, M. D., Director of the Bacteriological Laboratory, Phila. In those cases immunized no visual traces of the disease was ever manifested, though bacteriologic tests showed the characteristic bacilli.

For comparison he classified his cases into varieties:—

Faucial	63 cases	no deaths
Laryngeal	20 cases	2 deaths
Fauces and Larynn	50 cases	3 deaths
Faucial, nasal, and Laryngeal	14 cases	7 deaths
Faucial and Nasal	6 cases	no deaths
Buccal, Faucial and Palatal	13 cases	1 death
Faucial and Palatal	56 cases	no deaths

Being a total of 222 cases with 13 deaths showing a mortality of $5\frac{19}{20}$ per cent. Of the 84 Laryngeal cases 12 died, 31 were intulated with 5 deaths.

Dr. Rosenthal's conclusions were: Diphtheria, antitoxin is a specific in Diphtheria, but whilst acting specifically it was not a cure, all, and other treatment must be pursued as indicated by the special case.

The earlier antitoxin was used, the more certain its success.

Prognostic Significance of Albuminuric Retinitis,

At the Forty-sixth Annual Meeting of the American Medical Association, held at Baltimore, Maryland, May 7-10, 1895, Dr. E. Oliver Belt, of Washington, D. C., read a paper on this subject in which he says: "It seems to be very generally admitted that the retinitis following scarlet fever and pregnancy is not of special prognostic significance as to vision or mortality, for under careful treatment recovery of both vision and health are not unusual in these cases. Therefore in this paper, such cases have been excluded, as the prognosis is altogether different and unfavorable in the retinitis of chronic Bright's disease. Though improvement of vision very frequently occurs in albminuric retinitis, it is of minor importance in comparison with the life of the patient, and the main point which I wish to determine is the average duration of life after the appearance of retinitis from renal disease. The statistics heretofore published upon this subject deal mostly with hospital cases, in which the duration of life rarely exceeds one year. Occasionally we see reported a case in private practice which has survived five, ten, and even fifteen years (Noyes mentions one of ten years, and Webster reports the case of a minister who survived seventeen years). Enough cases were reported to show that the duration of life is longer among private patients, and that renal affection is undoubtedly influenced by hygienic surroundings. However, the number of cases surviving two years was disappointingly low, and the consensus of opinion, as shown from letters received, seems to be that nearly all prove fatal in less than two years. * * *

"From all the statistics I have been able to find, we get the following results: Cases in private practice 155; of these 62 per cent. died within one year; 85 per cent. in two years, and 14 per cent. lived more than two years.

"Hospital cases, 77 of these, 85 per cent. died within one year; 93 per cent. in two years, and 6 per cent. lived more than two years.

"Mixed cases, 187 of these, 65 per cent. died within one year; 93 per cent. within two years, and 6 per cent. lived more than two years.

"Total number of cases, 419; of these, 72 per cent. died within one year; 90 per cent. within two years, and 9 per cent. lived more than two years."

Chronic Dry Nasal Catarrh.

The following prescription is recommended by one who has successfully tried it for chronic dry nasal catarrh:

1 oz. liquid vaseline.
½ oz. Sanmetto.
¼ oz. glycerine.

To be used as a spray three times daily through an atomizer, and to take internally Sanmetto in teaspoonful doses four times a day.

ELIX. APHRODISIAC.

V. P. CO.

Each Fluid Ounce contains :

Damiana,.....	30 grs.	Coca.....	20 grs.
Ac. Phos. Dil.....	1 fl. drachm.	Saw Palmetto.....	20 grs.
Kola.....	20 grs.		

Dose—One to two teaspoonfuls three or four times a day.

A VITALIZING AND DIFFUSIBLE STIMULANT AND TONIC,

exerting special influence upon the

Genito-Urinary Organs.

Useful in promoting growth of the mammæ and overcoming ovarian pain.

A POWERFUL APHRODISIAC.

Samples to Physicians.

REPORTS OF CASES INVITED,

The Virginia Pharmacal Co.

RICHMOND, VA.

A Simple Method of Plugging the Posterior Nares.

Dr. John T. Pitkin gives, in The Buffalo Medical Journal s metho of plugging the posterior nares for the relief of persistent bleeding It is as follows: The patient should be seated in a stiff back chair; insert in the nostril one end of a small sized rubber tube, soft, with a strong silk cork passing through its lumen. When from three to four nche have been introduced, instruct the patient to make repeated forced expiratory efforts through the mouth, while the operator continues the slow introduction of the tubing through the nose. The object of the expiratory efforts is to cause the end of the tube to present at the lips. In case it should fail to do so, the end in the pharynx can be easily grasped with the forceps and the tube, with its contained cord, drawn between the lips. A medicated cotton tampon is now securely fastened to the mouth end o the cord and gentle traction is made upon the nasal extremity, when the tampon will be drawn into position in the posterior nares with a minimum of distress to the patient. The rubber tube can now be slipped off the cord which, with the pledget of cotton will be left in situ.

Aristol is in all cases a drug of complete innocuity, possessing no oxic property, and having the great advantage of being free from odor.

Placentitis Retained Placenta.

Dr. C. B. Schoolfield (Cincinnati Obstetrical Society, May 2nd 1895) read a paper on this subject, reporting two casses. He stated that placental as well as Uterine inflammation is due to infection. Several emminent Bacteriologists were qoted to prove the existance of the Staphylococcus pyogones aureus, albus; citreus and several other kinds of coci in the vagina and uterus, long habitation of these organs cause them to become attenuated and innocuous until they come in contact with proper culture material such as blood clots and pieces of placental tissue, when they again become active enemies, the ptomaines toxalbumens &c., are set free by disintegration of the germs. These bacterial proteids encourage cell proliferation, and induce inflammation and necrocis of the tissues. Placentitis is usually secondary to endometritis, begining in the decidua serotina, and characterized by the formation of new granulation tissue, either nodular or diffuse, which by contraction leads to compression and obliteration of the placental vessels and to consequent fatty degeneration of the villi.

Symptoms: Unusual difficulty in removing the placenta in other labors may lead you to suspect adhesions. If during the third stage of labor the uterus contracts at intervals firmly, each contraction being accompanied by blood, and yet following up the cord you find the placenta still in utero, if on pulling the cord, two fingers being pressed on the placenta at the root, you feel the placenta and uterus descend in one mass, a sense dragging pain being elicited, if during a pain the uterine tumor does not present a globular form, but becomes more prominent at the place of placental attachment, we may conclude that there are placental adhesions. A diagnosis before the beginning of the third stage of labor is doubtful. Treatment consists in guarding against abortions and other causes of endometritis, learn from Leopold not to make digital examinations during labor. In the third stage of labor traction should not be made on the cord, the "peeling process" should be done carefully lest the fingers be pushed through the uterine walls. After the placenta is removed the uterus should be flushed with a 1 to 8000 sol' of bichloride, the strictest rules of asepsis should be observed throughout.

At the last meetings of the Physical and of the Physiological Society of Berlin, Professor Roentgen's astonishing discovery was the topic of the hour, and his photographs taken by the cathode light of a Crookes's tube were exhibited. There was a set of weights photographed inside a wooden box lined with velvet, and the skeleton of a hand photographed from the living subject. In this last photograph the rings on the fingers seemed to be hanging in the air. Professor Roentgen calls the rays which pass through wood, velvet, skin, blood, and muscle "rays," as little about their nature is known. This much, however, is certain, that the rays are not deviated by water, but pass straight through this medium.

ALWAYS THE SAME.

A STANDARD OF ANTISEPTIC WORTH.

LISTERINE.

LISTERINE is to make and maintain surgical cleanliness in the antiseptic and prophylactic treatment and care of all parts of the human body.

LISTERINE is of accurately determined and uniform antiseptic power, and of positive originality.

LISTERINE is kept in stock by all worthy pharmacists everywhere.

LISTERINE is taken as the standard of antiseptic preparations: The imitators all say, "It is something like Listerine."

:o:

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LITHIATED HYDRANGEA.

A valuable Renal Alterative and Anti-Lithic agent of marked service in the treatment of Cystitis, Gout, Rheumatism, and diseases of the Uric Diathesis generally.

DESCRIPTIVE LITERATUE UPON APPLICATION.

LAMBERT PHARMACAL CO., ST. LOUIS.

An Analysis of the Deaths in Detroit, Mich., Among Children Under Two Years Old, During June, July and August, 1894, and the Relation of Diet to this Mortality.

Under this heading Dr. Douglas presents a very interesting collection of facts, both mortuary and dietetic. It is especially valuable, as it gives the results of hand feeding versus nursing. He gathers his data by obtaining from the health office of Detroit a full list of all children under two years old dying during June, July and August, the months of greatest mortality. This comprises 477 cases, of which 417 are in their first year, and 60 in their second year, or seven in the first for every one in the second. The mortality rate shows, contagious diseases 16, respiratory affections 40, stomach and bowel troubles 337, and cerebral irritations, alone or complicating other diseases, 125.

The most interesting and important facts relates to the dietary of those dying from affections of the alimentary canal. Of these 294 died during the first year and 43 during the second, or about seven to one. Of this 294 dying in the first year, hand feeding claimed 244, and nursing 50, or nearly 5 to 1.

The importance of such knowledge cannot be over-estimated. Our health boards and quarantine authorities are exerting themselves to stamp out or prevent dangerous diseases, and thus save the lives of our citizens; but they calmly look on and record fatal results by the thousaud from a cause that they do not even think worthy of noticing—the dietary of our infants. It behooves physicians to impress upon their patients, the public generally, and all officially connected with health matters, the great importance of this subject, and not any longer allow our little infants to be sacrificed by the ignorance of their parents. They should insist that this feature requires professional attention always, and thus educate the public up to this important subject. Dr. Douglas is to be commended for this interesting and very opportune paper.

A Card.

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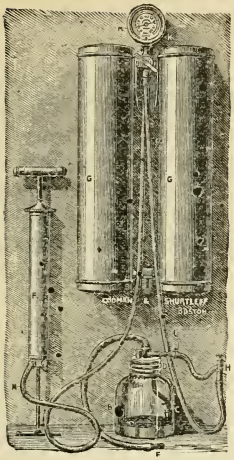

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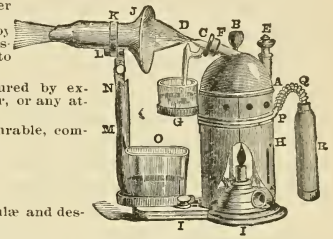

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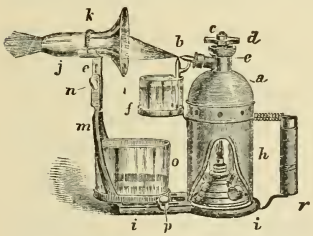

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the black ground of the general heavens," the lunar mountains are measured, and the spots on the sun revealed. Man would study the anatomy and habits of the myriads of insects in which the teeming earth abounds. Impossible! The mechanism of the eye is not adapted to such a delicate operation. But the hand presents the microscope, and a world of hitherto unknown minute existences is revealed with a distinctness which permits the most exhaustive investigation. Thus, through the aid of the hand, the eye now contemplates with philosophic interest the ever-changing aspect of the spots on the sun at a distance of ninety million miles, and now imprisons the blood cells and studies their physiology, so with electricity—once upon a time an unbridled and untamed element—now handled with impunity, and made to serve man in all arts and sciences; so also man would speak with his friend or business correspondent miles away. Neither the voice nor the ear is adapted to the task. But the hand fashions and presents the telephone and the conversation proceeds even in a whisper. It will be said that the mind devises the telescope, the microscope, the electrical appliances, &c. True, but their construction would be impossible without the hand. And is it at all probable that the mind would have devised these admirable instruments if man had been made without hands?*

All reforms must encounter the stolid resistance of habit. It is not less tyrannical because it is a negative force It braces itself and holds back with all its might. It is in this manner that the past dominates the present. This automatic habit of mind is precisely like certain automatic habits of the body which operate quite independently of any act of volition. For example: "When we move about in a room with the objects in which we are quite familiar, we direct our steps so as to avoid them, without being conscious what they are or what we are doing; we see them, as we easily discover if we try to move about in the same way with our eyes shut, but we do not *perceive* them, the mind being fully occupied with some train of thought."† In the same way the mind under certain conditions becomes an automaton, constantly revolving old thoughts after the causes that gave to them have ceased to operate. Piano-forte playing affords an excellent illustration of this automatic action of the mind. "A

*"The hand is the most marvellous instrument in the world; it is the necessary complement of the mind in dealing with matter in all varied forms. It is the hand that rounded Peter's dome; it is the hand that carved those statues in marble and bronze, that painted those pictures in palace and church, which we travel into distant lands to admire: it is the hand that builds the ships which sail the sea, laden with the commerce of the world; it is the hand that constructs the machinery which moves the busy industries of this age of steam and electricity; it is the hand that enables the mind to realize in a thousand ways its highest imaginings, its profoundest reasonings, and its most practical inventions."—James MacAlister before the American Institute of Instruction at Saratoga, July 13, 1882.

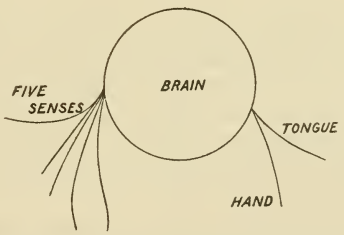
†"Body and Mind," p. 22, By H. Maudsley, M. D.

pupil learning to play the piano forte is obliged to call to mind each note, but the skillful player goes through no such process of conscious remembaance; his ideas, like his movements, are automatie, and both so rapid as to surpass the rapidity of succession of conscious ideas and movements.‡

Freedom of speech and freedom of thought are catch-penny phrases. There is much of the former, but very little of the latter. Speech is generally the result of automatic thought rather than of ratiocination. Independent thought is of all mentai processes the most difficult and the most rare; habit, tradition, and reverence for antiquity unite to forbid it, and these combined influences are strengthened by the law of heredity. The tendency to automatic action of the mind is still further promoted by the environment of modern life. Another most powerful influence contributes to the same end. The schools educate automatically. They train the absorbing powers of the brain, but fail to cultivate the faculties of assimilation and recreation, and neglect almost wholly to develope the power of expression. This point of the failure of the schools to train the brain-power of expression to its utmost is made plain here as follows:

Studying the functions of the brain, we find that for educational purposes it may be likened to an organism with a threefold form of working, an organism with a power of absorption, a power of assimilation and recreation, and a power of expressing or giving out. The force or character of a brain is measured entirely by its expressing power, by what comes out of it. Examining a little closer, we find that the brain absorbs through all the five senses, while for expressing purposes it makes use of but two of these senses, or rather of two organs of these senses—the tongue and the hand. Fig. 1 is a simple diagram representing a brain

Fig. 1



with the five senses placed on one side, as means of absorbing power, while on the other side the tongue and the hand are placed as organs of expressing power. The other function of the brain, that of assimilation and recreation, cannot of course be graphically represented. It may,

‡Ibid, p. 26.

however, be said to be the result of the action of the other two functions. Now, the equiping of a brain, or the healthy education of a brain, consists in giving it expressing power through the tongue and the hand, coextensive with the power of absorption and the power of recreation.

Applying our popular schemes of education to the brain, and especially those based on the 3–K idea of education, we find what is indicated in Fig. 2, that provision has been made for greatly distending the absorbing side, the practical side, provision has been limited to the use of the tongue in speech and to the hand in writing. If we now follow the result of this brain equipment into practical life, we find that speech and writing, as means for expressing thought, have their applications mainly in the

Reading .....
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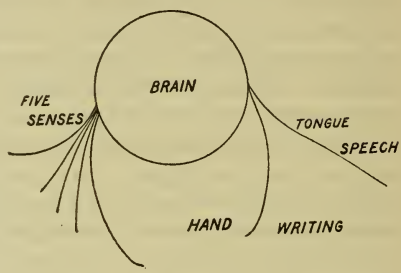
History .....
Languages.....
Physiology.....
Literature.....
Natural History.....
Theoretical Sciences.....

Fig. 2



commercial and financial employments, and the professions, and only incidentally in the industrial and mechanical employments. With such an inadequate and one-sided brain equipment it is not possible in any broad, practical way to bring thought or brain-power to the service of industry. The fact so generally admitted that we are getting so few intelligent artisans, or mechanics, and lesser educated professional men who, at least, require sufficient knowledge to carry on intelligently their profession, is undoubtedly due to our faulty schemes of education. The simple fact is that our education is not broad enough on the expressing side of the brain, that too much attention has been given to the absorbing side of this organ, that no adequate provisions have been made whereby it can discharge its power in work connected with such industries befitting each branch of his undertaking.

In Fig. 3 a remedy for this defect is indicated in the addition of the study of graphic and æsthetic art, through drawing, and of training in the manual arts, &c., to the previous brain equipment. Observe where these features came in the scene—on the expressing side of the brain and in the service of the hand, thus giving the brain ample power to discharge thought in its most complete form for use or for beauty. With these and other features added to the brain equipment its power of expressing thought in

all practical directions will be coextensive with its absorbing and recreating powers.

These are ample proofs that much of our education is given us automatically rather than rationally, which is of such vital importance. The questions naturally arise: What is the cause of this lamentable ignorance? and what is the remedy? The answer to the former suggests the reply to the latter. Too much has been attempted in the professional schools. There has been a slavish adherence to the text books, and no room given for freedom and originallty of thought. Rules have been momorized, and the students taught to recite from the text-books, while they have not had the slightest conception from a practical point of view, yes even of the true meaning of the subject. If instead of this (the prevailing routine

Reading.....
Mathematics.....
Geography .....
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History .....
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Natural History .....
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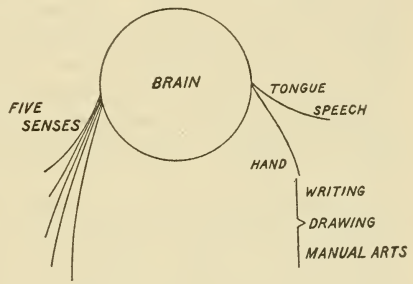
Practical Sciences.....

Fig. 3



method) the student should be compelled to deal in the laboratories, and clinical wards, with real things, and conditions of his problem, the fiction which electricity now is to most pupils would become to them a reality. The prime difficulty is here stated. The most of, if not all, our higher schools deal in "fictions." The *memory* is cultivated and the *reason* allowed to slumber. Now, if to every fact memorized the pupil were required to apply the test of reason, to analyze it and find out its relation to other facts, and fix it with all its relations in his mind, he would possess certain solid information of an ascertained practical value. It is very simple. It is making the student think for himself by showing him how to think for himself instead of thinking for him. Of course this is equal to abject teaching. This is, so to speak ,also a kindergarten system which is now rapidly coming into high favor as an essential preliminary step in education. It is also the system of all the normal training schools. Why our professional colleges are no more, or less than other schools of education—but our methods are very faulty, and it would be a stride in the advance if we would institute in them a plan of tuition more practical than heretofore in vogue. Laboratories wherever they could be useful—so that all faculties could be developed simultaneously by their aid. Un-

der that system the student is not merely told that a certain battery gives a larger electro-motive force than another type, but a proper measuring instrument is placed in his hands and is thought to use it and make his own practical observation, and so of all the mechanical apparatuses in in every deparment he is studying. 'He stands at the forge, bends over the moulding-form, presides at the turning-lathe, that ingenious invention of Maudsley—an automaton truer than the human eye, more cunning and more accurate than the human hand; executes plans for patterns and then makes the patterns, and finally, from the faint lines he has traced on paper, constructs a machine, breathes the breath of life (steam or electricity) into its veins, and with it moves mountains."

The change from automatic to scientific education ought not to be very difficult. It has been made in the kindergarten system, which was an important step in object teaching, and thereby trains the young both automatically and manually. The most important work of to-day is to collect, reconcile, and apply all the principles and methods of education that have been discovered in the past, into one science and art of teaching. This would certainly radically change all our methods. When this is done the ground will be made ready for new advances in the incomplete method of education. Because a complete science has not yet been discovered is a very poor reason for not applying what we already know, What specific changes would the application of known mental laws, in teaching about which all psychologists are in agreement, bring about? For it is only by a sharp comparison of what is now done according to tradition and custom in our colleges, with that which can be done by the application of the simplest principles of teaching, that the value of the true art of instruction may be in some degree appreciated.

460 Lexington Avenue, New York City.

Acne.

By H. D. Parsol. M. D., Haywards, Cal.

Acne may be defined as a reflex inflammatory condition affecting the sebaceous glands and perifolicular tissues in which papules, pustules or tubercles appear, either alone or in combination. These usually appear on the face and back. To the above forms of development Shoemaker adds abscesses. While we can hardly concede that an abscess is a form of acne, yet it is but slightly removed from it, a mere abnormal development of the indurated variety. But abscess is also found in many cases either alone or coexisting with other forms of skin disease as eczema, scabes and pediculosis, hence it must be a distinct condition, caused, no doubt, by local irritation or inflammation produced by pre-existing disease.

The condition is most common in young adults, but is present to a

considerable extent in patients from the age of fifteen to forty-five, or during the period of most active sexual life. In women it is rarely found after the menopause, but the pustular variety frequently exists before puberty. Males and females are alike subject to its attack. A tendency to the affection may be congenital, an anemic condition of the skin has been noted in cases where the members of a family were especially subject to it.

A blond is more liable to this condition than a brunette. Lymphatic or strumous diathesis may be a factor in its production, such condition giving rise to weak and debilitated glands which are readily acted upon by irritation, thus causing capillary congestion and the retention of sebum. While a lack of cleanliness has been sighted as a cause, it is a fact that acne occurs among the better class as often as among those of the poorer districts. That it depends on a morbid condition of the digestive tract has many advocates, likewise that it finds its origin in the genito urinary organs; others claim that mental troubles are a prolific cause. I believe they are all correct as far as they go. This is, to my mind, a reflex condition depending for its existence on wrongs of other parts of the body, and as these tracts are closely connected with the innervation of the skin, any derangement of them would, under favorable circumstances, give rise to congestion and its sequela.

The internal use of iodides, bromides and like remedies, may give rise to a condition similar to acne. This is the probable cause of acne in children.

A pustule on examination, in section, shows evidence of venous congestion and perifolliculitis, the veins being dilated to such an extent as to cause a closing of the ducts. This is followed by exudation, infiltration, and later by the formation of pus.

The principal varieties of acne are acne vulgaris or simplex, and acne indurated. To these some authors add rosacea and comedo.

Rosacea, however, differs so greatly from the other forms of acne that it is usually classified as a separate disease. Acne punctata, or comedo, differ from the two true forms of acne in that it is a glandular affection, and while a perifolleculitis may be set up yet inflammation is not a necessary characteristic of the disease.

Acne vulgaris is the most common of all skin diseases, and is usually found on the face, neck or back; but may occur in any portion of the body where the sebacous glands are found. It appears in the form of papules or pustules surrounded by an inflammatory areola. These papulo-pustules vary in size from a pins head to that of a split pea and are found in all stages of development from the retention of the secretion to the cicatrix left by the breaking and scabbing ones of the pustules.

The duration of a single pustule is less than a week, but the rapid development of new points keeps up a continuous eruption. This form

may terminate in either of two ways, by absorption and desiccation or by breaking down of the pustules.

Acne indurata differs from the preceding in that it is characterized by hard nodules, the subcutaneous cellular tissue being involved to a considerable extent. These nodules may be readily felt or seen. The skin covering them is at first but little changed in color, but as pus begins to form around the induration it becomes a deep red or purple. The termination of this form is by absorption or abscess.

Besides comedo and rosacea acne must be differentiated from milium, seborrhœa and the ruption of secondary syphilis.

The first of these, milium, is a local affection characterized by the retention of sebum in the sebaceous follicles, being in this respect similar to both acne and comedo, but differing from acne in that inflammation is not necessarily present, and from comedo in the appearance at the distended mouth of the follicle, milium presenting a white papule similar in appearance to a grain of sand.

Seborrhœa is a glandular disease in which the sebum is greatly increased in quantity, giving rise to an oily condition of the skin, a small, dry and dark crust, which finds lodgment in the wrinkled portions of the face, or fine brauny scales composed of the dried sebaceous matter. These scales are similar in appearance to the exfoliation of erythematous eczema. In none of these conditions is irritation necessarily present.

The pustules of secondary syphilis, while similar in appearance to acne, are usually disseminated over the greater portion of the body, and are accompanied by the sore throat, artheritic pains or enlarged glands, characteristic of syphilis. Another important differential point in this condition is the history of syphilitic taint.

In the treatment of these conditions, two things must be taken into consideration. First, the primary lesion, and second, the condition of the skin. In neither of these can an imperical form of treatment be laid down. General tonic and alterative remedies may be given with much advantage, especially in anemic patients.

The medical treatment will probably in no two cases be alike, but attention to food and surrounding conditions will invariably be found of much advantage, and in many cases will be the only required measures. As the primary lesions are, to a great extent, the result of an overtaxed mind or body, rest and change are imperative. Do not misunderstand me when I say rest. This is not necessarilly a refraining from all physical or mental labor, but a change from that which is causing the wrong. For instance, if the lesion is along the gastro-intestinal tract, caused by a too sedentary life, the rest would be found in physical activity.

Among the remedies which will be found of advantage in many of these cases are nux vomica, and its alkaloids, arsenic, etc.

Other indicated remedies will find a place in the treatment of this

condition such as: Sulphide of calcium, where the pimples are large and firm; chloride of gold and sodium, where the pimples are red and arise from the genito-urinary tract.

Where the lesion is found to be in the gastro-intestinal tract, or where the mental faculties are involved, the treatment will be mainly antiseptic, tonic and sedative. Different operating methods have been employed, such as curetting, rubbing the skin with sand or lancing to relieve the congestion and abscesses.

The treatment I usually follow is to have the part bathed once a day, using juniper tar, or cuticura soap, the latter having given me the best results. Most of the abscesses I have lanced as soon as they showed signs of pus, but I have been using positive galvanism over the part in a number of recent cases. While I am not ready to say that this is the best treatment, I can say that I have been satisfied with the results I have obtained from this use of electricity, and I would recommend experiments on this ine.

Congenital Hydrocephalus.

Report of Three Cases.

By J. Z. Currie, B. A., M. D., L. M., Ph.D., Etc.

Of the abnormal conditions of the fœtus, which occur during gestation, and which seriously threaten the life of both mother and child, hydrocephalus is fortunately one of the rarest. Madame La Chappelle and M. Durges reported 15 cases of hydrocephalus of a sufficiently grave character to complicate labor, as occurring in 43,555 births, nearly one in every 3,000. Comparative few statistics respecting the actual frequency of its occurrence are recorded, but most writers apparently accept this proposition. In a series of 6,777 cases of midwifery attended by Dr. James Ross, of Toronto, between the years 1752 and 1892, hydrocephalus occurred four times, once in about every 1,700.

The statistics of Merriman and a few others, however, place its occurrence as frequent as about one in every 900 births.

The anatomical condition present in these cases furnishes no indication as to the nature or cause of the affection. The collection of fluid is within the "lateral ventricles which are sometimes greatly distended, the third ventricle is enlarged, the aqueduct of Sylvius is dilated, and the fourth ventricle may also be distended." The fluid is a limpid almost colorless liquid, containing a trace of albumen and salts. It is said to be the result of an inflammation of the lining membrane of the ventricles and of the arachnoid, but no definite determining cause has ever been discovered. The most probable causes are alcohol, consanguinity, syphilis and cretinism.

In a paper published by Hergott, in 1878, it was maintained that there is an "invariable causative relation between co-existing cretinism and hydrocephalus." In like manner each of these alleged causes has, at various times, had its advocates. That it may be due to some inherited constitutional tendency seems probable from the fact that although hydrocephalus in utero occurs so infrequently, several cases have been known to occur in the same family. One of the most marked instances of this kind, of which I am aware, was recorded by Leroy in the Medical World of May, 1889, in which a mother bore three hydrocephalic children in succession. In each of the three cases which have come under my notice, the father was addicted to the excessive use of alcohol, and in two cases tuberculosis had occurred in some member of the family, either near or remote.

Under all circumstances Congenital Hydrocephalus is an extremely grave affection as regards the life of the child. If the enlargement of the head be sufficiently great to render artificial delivery necessary the death of the child is certain. As far as I can learn there is no recorded case in which, under these circumstances, the child survived. Even in cases of a less serious character in which delivery is effected without assistance the prognosis as regards the safety of the child is extremely bad. Chassainat's records show that in 60 cases of this kind, 41 children died during labor, and only 4 out of 19 born alive, lived for any considerable time. Of those who live for several years, a large proportion, if not all, show the effect of the conganital trouble at some time before advanced age.

In April, 1894, Heintz Kaupfenberg drscribed the case of a man, who died at 48 years of age with symptoms of cerebral tumor, which at the necropsy were found to have been the result of Congenital Hydrocephalus, and not to tumor as was supposed at the time of his death. Other cases, similar in character, are also recorded. In view of these well established cases, in which the cause of death was attributed to something other than the hydrocephalus existing at birth, and in view of the comparatively few cases in which an autopsy reveals the actual cause of death, it appears more than probable that no case of Congenital Hydrocephalus is ever permanently recovered from.

The danger to the mother in cases of dystocia, from this cause, is largely the result of failure to recognize and relieve the existing condition sufficiently early. The mortality to mothers, according to Poullet and Speigelberg, is about 25 per cent. It is doubtful, however, if this represents a legitimate rate of mortality, as so much depends upon an early and efficient recognition of the nature of the case. The danger to the mother is chiefly from long continued and probably unequal pressure, from exhaustion, or from rupture of the uterus. A few cases of emphysema of the lungs resulting from this cause are also recorded. Although exhaustion may not result any more quickly, or the result of continued pres-

sure be any more serious than in similar cases, dependent upon another cause, rupture of the uterus apparently occurs more frequently than in other protracted cases. Keiler reported 74 cases of dystocia from a hydrocephaloid head, in 16 of which rupture of the uterus occurred.

Charpentien's statement is that in 17.79 per cent. of all these cases the mother dies from rupture of the uterus. Poullet records 106 cases in which 21 mothers died from the same cause, and Keith quotes 74 recorded cases in 16 of which the uterus was ruptured. In all of these statements rupture of the uterus occurred in about one in five cases.

Although rupture of the uterus under the circumstances is a very serious complication, a few cases of recovery after this accident are recorded. Fetherston, in the Australian Medical Journal of Dec. 15, 1893, describes the particulars of a case in which the parturient had been in pain at intervals for about six days, when suddenly very violent pains came on accompanied by considerable loss of blood and collapse. A diagnosis of rupture of the uterus was made and delivery effected by version. Laparatomy was performed and the uterus removed, the case ending in a satisfactory recovery. In this case the uterus had ruptured and the placenta had passed into the abdominal cavity. A few other similar cases are recorded also.

The danger to the mother is to a certain extent dependent upon the presentation. In cases of breech presentation there is generally no unusual delay until the body of the child is born and the head becomes arrested at the brim. Thus during a considerable portion of the labor progress is not arrested and the soft parts of the mother are not subjected to unusual pressure. Moreover the child is then known to be dead, the nature of the trouble causing delay is more likely to be recognized at once and steps taken for immediate relief, and in my opinion the head is more easily extracted than if it were the presenting part. For these reasons, I think breech or even trunk presentations are likely to be less formidable to the mother than when the head presents. Some authorities, however, think the reverse of this statement true, and urge the necessity of converting all into vertex presentations whenever possible. The great difficulty is that although a vertex presentation may admit of the labor being completed more readily and with the minimum amount of danger to the child, it is much less likely to be discovered sufficiently early to give the best chance of recovery to the mother.

The length of the labor to which so much importance attaches, has been found, by different observers, to vary greatly. Collins reports six cases in which the child was still born from hydrocephalus. In three of these the labor lasted only an hour, in the fourth only two hours, in the fifth twenty-six hours, and in the sixth labor was not completed after thirty-two hours in pain. In none of these did the mother suffer.

On the other hand Lee reports five similar cases; one was 20 hours

in labor, one 60 hours, one 72 hours, and the other two still longer. In this series of cases three mothers died, two deaths being from rupture of the uterus. Of the three cases which I have seen, and which were all breech cases, one was three hours, one five hours, and one twelve hours in labor.

The importance of an early diagnosis cannot be over-estimated, but this is frequently much more difficult than the precise rules laid down by many writers indicate. In a large number of cases collected by Chaussier in 1864, a mistaken diagnosis had been made in more than one-half.

Breech and trunk presentations are much more frequent when the foetus is hydrocephalic than under ordinary circumstances. Scanzoni collected 150 cases, in 30 of which some part other than the head presented, about one in five. In breech cases the labor usually goes on in the ordinary way, until the abnormal head is arrested at the brim, and then no difficulty should be experienced in determining the nature of the case. However, if the child be of ordinary size, and the head large, touch internally reveals little but the enlarged, broad and moderately firm base of the skull. The base of the skull, the part within reach, is but slightly changed in the hydrocephalic head, but the uterus being emptied of all its contents, excepting the enlarged head around which it contracts closely, external manipulation usually reveals at once the existing conditions.

In vertex presentations, if the descending head be within reach of the examining hand, its condition should be recognized by the ordinary signs, such as its rounded outline, broad sutures, disproportion between the face and brow, etc., but if the head be large its progress will be arrested at the brim of the pelvis, and here it is in many cases quite impossible to determine the condition with accuracy by any ordinary internal examination.

One indication of a presenting hydrocephalic head of large size to which I think considerable importance should be attached, and which is seldom referred to, is the beating of the fœtal heart above the umbilicus of the mother. Hydrocephalic heads differ greatly, both as to size, extent and degree of ossifacation of the cranial bones, thickness and condition of the scalp, etc., and in this way the existing condition is rendered more obscure.

Cazeaux records two cases of hydrocephalic heads complicating labor in which there was such an accumulation of fluid within the scalp, that an incision was necessary for its removal before the skull could be punctured and labor completed.

In one of my cases the cranial bones were so firm that the whole mass had to be thoroughly broken down with the cephalotribe before delivery could be effected, whereas, in each of the other cases the head collapsed readily after the removal of the liquid. Thus it is evident that no definite rules can be formulated for the recognition of these cases. The point to which I wish to call special attention is that, *whenever during*

labor with pains of ordinary force the progress of the head is arrested at the brim without a well understood cause, an examination under ether should be made at once. The examining hand can then enter the vaginal canal, and with external manipulation the condition of the fœtal head should be readily recognized. In these, as in all similar cases, external manipulation is a very important element in determining the position of the child.

In avery case of difficult labor, arising from hydrocephalus in the fœtus, if progress be arrested, or if the labor be unduly prolonged and the pains be violent, the indication is to reduce the size of the head at once and if the labor does not then proceed satisfactorily to deliver as soon as possible. In vertex presentations, if the child be alive, it is better to puncture the head at first, with a trocar, or guarded knife, in order that the liquid may drain away gradually. However, collapse of the head, whether slow or rapid, usually terminates the life of the child. In aggravated cases the opening will need to be enlarged and in all probability the whole head thoroughly crushed before delivery can be effected. After puncture and collapse the head can usually be brought down by means of the cephalotribe, forceps designed for the purpose, or by a hook or other appliance inserted within the opening in the skull. Ordinary forceps are usually not sufficient for the purpose. Turning after puncture is advocated by some, but judging from my own experience in most cases this would be a very difficult proceeding.

In breech cases interference is usually unnecessary until the body of the child is born. Under these circumstances there should be no hesitation in opening the head largely at once, and crushing if necessary. The head can then usually be made to engage by getting a finger into the mouth of the child, or by a hook or some curved instrument within the opening in the skull, combined with traction upon the trunk and external pressure from above. The place of puncture is unimportant so long as it admits of all the contents of the cranium being evacuated. If the head cannot be reached it is better to adopt the proceeding suggested by Van Huevel. This consists in "opening the spinal canal transversely; then a rubber sound with a firm mandarin should be passed through the opening into the cranium, where the liquid runs away upon withdrawal of the mandarin." The first recorded case of this kind was by Tarnier in 1876, and it has been adopted frequently since. Even if not sufficient for completion of the labor, this proceeding allows the head to descend within reach and renders puncture possible.

Dr. J. Evans reported a case in the Montreal Medical and Surgical Journal in 1893, in which an enormous hydrocephalic head was arrested at the brim and entirely beyond the reach of an instrument. The cervical canal was opened and a gum elastic catheter passed into the cranium, when sufficient liquid drained away to permit the head to be drawn down sufficiently far to be punctured behind the ear and the labor to be completed.

It sometimes happens when the head is arrested that traction upon the body of the child unintentionally separates the head from the body. This had happened in a case to which I was called in consultation, but the size of the head was in no way diminished in consequence. Some of the authorities recommend detruncation in these cases, and in a case reported by Hubois sufficient fluid escaped upon separation of the head to permit of its ready delivery.

Some years ago the late Mathews Duncan made some interesting experiments to ascertain the amount of force necessary to separate the head from the body of a healthy, well formed child at term. He found the force necessary to decapitate was 120 lbs.; that the vertebral column gave way under a tractile force of 108 lbs., and that one leg was stronger than the neck.

All of the three cases which have come under my notice were breech presentations, and the body of the child was born before my arrival, the head being arrested with the occiput above the pubic arch and the face to the sacrum. Two of these cases occurred in my own practice, with an interval of about ten years between them, and the third occurred during the past year in the practice of a neighboring physician.

In the first case the father was a strong, robust man about 45 years of age, a laborer and a heavy drinker, for many years having been accustomed to have lengthy periodical sprees. Nothing of interest in the family history. The mother was 42 years of age, thin in flesh, but in good health at that time, and of the most exemplary character. This was her fifth childbirth; all previous labors normal. Nothing of importance in her immediate family history. About ten years after the mother died of tuberculosis, and subsequently a daughter died of the same disease. In this case the child had been dead for some time, and the head was at once punctured behind the ear with Smellies scissors. The liquid ran away very freely and in large quantity, but the labor did not proceed nor could the head be brought away in this condition. By means of the cephalotribe the head was thoroughly crushed and emptied of all the soft parts. Then with one finger in the mouth, and by making traction upon the trunk, the mass was with difficulty brought away. Having no assistance in this case external supra pubic pressure did not materially assist in the delivery.

I am unfortunately unable to give any definite particulars respecting the history of the second case. The parents were about the same age as in the first case, the birth was conducted in the same manner, but was effected with less difficulty. The head was not so large as in the first instance, the cranial bones were smaller and thinner, and the soft parts forming the cranial vault were thinner; the head collapsed more readily, and a smaller mass remained to be brought away.

In the third case, to which I was called in consultation, the father

was a strong, robust man, a laborer, 28 years of age, and had been addicted to drink since childhood. He was not a constant drinker, but had frequent sprees of a very aggravated character. The mother was 24 years of age, of small size, but the body was well nourished and she had good health. One sister died of tuberculosis, but the family history was otherwise unimportant. This was the third labor, one of which was instrumental. Before I saw the case the head had been accidentally separated from the body. However, it had not been appreciably diminished in size and the labour had not made any further progress, but the head had been retained in its original position by the closely contracting uterus. Having pressure made upon the head externally to hold it firmly in position an opening was made behind the ear. The liquid ran away very freely and in the most surprising quantity. Then with one finger in the mouth and the curved handle of Woods' forceps in the opening in the skull, assisted by pressure externally, the labor was completed.

For making the puncture I found Smellies scissors, slightly curved on the flat, the most convenient instrument. In each instance the mother made a rapid and uninterrupted recovery.

In the history of these three cases there are a few features which are, perhaps, of more than ordinary interest.

In each case the parents were evidently in good health at the time of conception, and the mother continued healthy throughout the whole period of gestation and for some time afterward.

In each case the child was of large size, well developed and without any deformity excepting the enlarged head. As is well known this is unusual, the body of the hydrocephalic child at birth usually being small, shrunken and ill developed, and frequently has some other abnormality.

In each case, whatever may have been the original special position of the child, by the time the shoulders were born, both the body and head occupied the same position.

In each case the father was a heavy drinker.

In addition to this it may be of interest to notice that although hydrocephalic children are usually the offspring of parents well advanced in life, the mother seldom being less than 40 years of age—in one of these cases the father was but 28 and the mother but 24 years of age.

Cambridge, Mass., 907 Massachusetts Avenue.

A Salubrious Climate.

Woolly Wester:—Blame me if I ain't seen fellers here gain two pounds in weight in five minutes.

Consumptive :—What, flesh ?

Woolly Wester :—Naw, lead.—*Chicago Record.*

Puerperal Fever.

By W. E. Fitch, M. D., Durham, N. C., Member of the N. C. State Medical Society: Member of the American Medical Association.

Puerperal Fever; what is this disease? The name first given this malady by Strother in 1716, was "Puerperal Fever."

More than 250 epidemics have been described by different authors since 1740. It has always been a terribly fatal disease, both in hospital and private practice. In the American Journal of Medical Sciences, October number, 1842, and April number, 1845; Drs. Hall and Dexter say that its effects were observed in every situation and condition of life. In the populous city, and the backwoods settlement; in the homes of the rich, and in the hovels of the poor.

In Caledonia county, Vermont, in 1843, there was an epidemic of 30 cases and only one recovery. In Bath, N. H., a village of 15 or 16 hundred inhabitants, 22 mothers died from this fatal disease.

Dr. W. O. Smith, of Newpork, Ky., and Dr. H. G. Cary, of Dayton, Ohio, each report an epidemic occurring in small sized towns. My esteemed friend, Dr. J. M. Manning, of Durham, N. C., tells me of an epidemic occurring here in Durham some five or six years ago of quite a fatal character.

I could cite you other cases, clearly proving the fact that the opinion held by some, is an error, that this is a disease peculiar to lying-in-hospitals, or large cities, or over crowded, ill-ventilated apartments. I could give you facts, undisputable, that this disease is sometimes endemic, occurring occasionally in a circumscribed district and no where else, and in all probability due to some local cause.

Furthermore, I am positive that the evidence is overwhelming and conclusive that it is a contagious disease. The direct proofs of the reality of contagion are not wanting and, in this decade it ought to be superfluous to recall them. There is not a large city in America or Europe where the medical public does not accept this belief. It has often occurred that one physician is tracked by puerperal fever, following a number of labors attended by himself, while in the same community, village, or city, the disease is not met with in the practice of other physicians.

In an essay on puerperal fever, by Dr. Gooch, he says: "It is not uncommon for the greater number of cases to occur in the practice of one man, while other practitioners in the same community meet with few or no cases."

In different parts of the United States, both in city and country, numerous instances have been published, where a series of cases of this disease has occurred in the practice of one physician, while other physicians in the immediate community have not had a single case. Puerperal fever belongs to the zymotic class of diseases, and results from some un-

known blood changes. This fever is peculiar to puerperal women, and is, therefore, appropriately named puerpural fever.

The symptoms of this disease are essential and are not the consequence of any local lesions, and it is as much a distinct disease as typhus, typhoid, or relapsing fever. We are as ignorant of the specific cause of these blood changes as we are of those which develop relapsing fever, or scarlet fever, or any of the other essential fevers.

The determining cause of this fever may be either epidemic or endemic influences, contagion, infection, or, probably, nosocomial malaria. Any of the local inflammations may occur in the puerperal woman without puerperal fever; and, on the other hand, puerperal fever may be so severe as to destroy life, without sufficient local disease to account for the symptoms, or explain the cause of death. Septicæmia or Sapræmia may be developed in a puerperal woman, either from autogenic or heterogenic infection, without puerperal fever, but either of these infections may also complicate puerperal fever.

In The Charlotte Medical Journal, March number, 1895, I published a thesis on Sapræmia and Septicæmia, differential diagnosis and treatment, to which you can refer for clearness in the distinctions between Puerperal Fever, Septicæmia and Sapræmia.

Now I come to the symptoms. In all zymotic diseases the symptoms vary greatly in different epidemics. In the great majority of cases the first symptoms of puerperal fever are manifested about the third or fourth day after delivery; very rarely after the fifth day; hardly ever after the eighth day. The first symptoms, in most cases, will be restlessness, followed by a chill or chilly sensation. But this, when occurring early, may be so slight as to pass unnoticed, unless special interrogation be made in regard to it, but, still, in many cases the chill is severe, lasting from one-half to three hours. In most cases, soon after the chill, there is sudden development of abdominal pain. This symptom is always present. Tympany soon follows, and when near a fatal termination there is often rapid distention of the abdomen due to the accumulation of gas in the intestines. The temperature is always elevated from 2 to 5½ degrees higher than normal. A constant symptom of this disease is great frequency of the pulse, the heart's action is never below 108, and frequently is as high as 160 per minute. At the time of the chill the pulse is small, thready and quick, but after the chill has passed off, the pulse bscomes fuller but without increase of force and is easily compressed by the finger. It is often irregular and unsteady, and, as death approaches, it becomes very frequent, irregular and thready. Respirations are always hurried, from 24 to 35, 40 or 50 a minute. The tongue is generally moist, covered with a whitish coat, and often indented by the teeth.

There is frequently some delirium, especially during the night, but she is generally quiet through the day and quite forgets the excitement of the previous night.

Vomiting is a common symptom, always billious in character. Hic-

cough is also a frequent symptom in grave cases. Diarrhœa is another symptom usually present. Very rarely the vomiting and diarrhœa occur simultaneously.

The character of the lochial discharge furnishes us evidence in regard either to the existence or the intensity of the disease. The lochial discharge often diminishes immediately after the invasion of the disease, and after a day or two, nearly or quite disappears, while in other cases it increases in amount and changes in character, becoming either more sanguinolent or more purulent. In most cases the odor is very feted.

Recoveries are sometimes very rapid. But occasionally we meet with cases very formidable in the beginning that are convalescing nicely by the end of the second week. As a general rule the convalescence is tedious. From three to four weeks is the usual time required for recovery. But in those of a nervous, sanguine temperament, recovery may not be complete until after five, six or seven weeks.

I have a full report of a case which I treated last August and present here, hoping some reader of The Charlotte Medical Journal may be benefitted and enlightened in the treatment of this fearful disease. I would also advise every practitioner who practices midwifery to buy and read Fordyce Barker's latest work on puerperal diseases. No physician's library is complete without it.

Mrs. F., aged 26, multipara, who had been remarkably well during the whole period of gestation up to the 12th of July, when, owing to an accident while out driving, was thrown from a carriage and fell on the curb-stone, bruising hips and scarring right temple. She recovered from this and went to term. Was summoned at 12 P. M. August 3d, and found labor had commenced, vertex presenting L. O. A. The first stage of labor was about 8 hours, the second stage about 3 hours, and the third stage 10 minutes, when she was delivered of a 10 pound girl baby. The placenta came away in about 15 minutes, with sufficient but not excessive hemorrhage. There was a large clot of blood on the amniotic surface of the placenta. The uterus contracted firmly after the secundines were delivered, and a half teaspoonful of ergot had been administered. She slept for nearly an hour during the afternoon, and then awoke feeling very well.

August 4th, 6 P. M. Ate supper and enjoyed it—pulse 78, temperature $98\frac{2}{5}$, respiration 20. Condition normal in every respect.

August 5th, 9 A. M. Pulse 78, temperature 99, respiration 29. A little nervous, suffering with after-pains. Evening. Pulse 84, temperature 99.

August 6th, 10 A. M. Slept fairly well, bowels acted during the night, and bladder relieved early this A. M. Lochia appears to be normal; ate hearty breakfast; mamary secretions established; after-pains still annoying.

August 7th, 8 A. M. Pulse 84, respiration 20, temperature $100\frac{2}{5}$; restless and nervous; ate breakfast, milk and brandy punch. Gave 20 grains sulph. quinine.

August 7th, 6 P. M. Was seized with a slight chill, which lasted for 16 or 20 minutes. Pulse 100, respiration 24, temperature 102½. 9 P. M. Perspiring quite freely. Pain over the hypogastric region, extending up as high as the umbilicus. Pain increased by taking full inspiration or by pressure. Tympanitis very pronounced; discharge abundant, and very offensive. Washed out the uterus with borolyptol and warm water, using a double current catheter. Uterus contracted, temperature fell to 101, pulse to 86, respiration to 22. Gave 20 grains of quinine and 20 grains bromide potash.

August 8th, 8 A. M. Patient has slept some and feels a little better, but nervous. Drank a cup of tea, but did not care much for breakfast. Slept a little during the forenoon.

August 8th, 6 P. M. Had another slight chill, which lasted 20 minutes; abdomen tympanitic tender on pressure. Pulse 104, temperature 103, respiration 26. Lochia free and offensive. Washed out the uterus with 8 oz. Peroxide Hydrogen. Pulse, respiration and temperature fell almost to normal. Gave quinine and bromide potass., 10 grains each. She went to sleep and rested quietly for three hours—perspired freely.

August 9th, 6 A. M. Temperature 102, pulse 100, respiration 24. Tenderness over abdomen, extending to umbilicus. Gave quinine and apple brandy; did not care for breakfast, but drank cup of tea and a little beef boullion; was restless and nervous all day; bowels and bladder acting about every six hours.

August 10, 6 A. M. Had a very hard chill, lasting about three hours. Pulse 120, temperature 104, respiration 30. Very nervous; hiccough; tympanites very pronounced; whole abdomen tender to touch; could not take a full inspiration without pain. The respirations are shallow and irregular; some subsultus; delirious, mild; tongue dry and covered to tip with brown coating; face flushed. She has vomited, being bilious in character.

August 10th, 11 A. M. Called in Dr. J. M. Manning. We used the Peroxide of Hydrogen again, in full strength, to the inside of uterus, brought away the offensive discharge and corrected the odor. Gave tincture ferrichloridi, gtts. 10, every three hours, phos. acid, (dil.) 10 gtts., every three hours, and quinine 20 grain doses every four hours, till cinchonism was produced.

August 10, 5 P. M. Pulse 120, temperature 103½, respiration 26. Dr. Manning called. We consulted Dr. Fordyce Barker on Puerperal Fever and added to our treatment tinct. veratrum viride in two to three drop doses every hour, closely watching its effects till we reached the physiological effect of the drug as shown in the record of the case hereunto attached. At 8 P. M. she had another very hard chill, which lasted 30 minutes. I thought here the patient would die, the rigors were so hard. The expression of the patient was cadaveric in the extreme. Pulse 120, respiration 30, temperature 104. Heart irregular, some subsultus, hiccough, delirium, wild and maniacal.

Time.	Pulse.	Respiration.	Temperature.	V. Viridi.	Tr. Iron.	Remarks.
Aug. 10.						Saturday.
6 P. M.	120	24	102½	3	10	Ergot, iron and digitalis—milk punch.
7 "	120	26	102	2		Visit of Dr. Manning; required considerable force to be kept in bed.
8 "	120	30	104	6		Chill lasted 30 minutes.
9 "	120	30	104	4		Five grs. sulph. quinine.
10 "	120	40	104	6		Milk punch.
11 "	120	36	104	6		Brandy; liq. peptonoids.
12 "	120	34	104	4		Nauseated.
Aug. 11.						Sunday.
1 A. M.	120	30	103½	8	10	Headache and hiccough.
2 "	120	30	102	4	10	Bandy and milk.
3 "	108	30	101	8	10	Sleeping.
4 "	100	28	101			Sleeping—digitalis and peptonoids.
5 "	80	26	100⅖	3	5	S. Strychnine $\frac{1}{50}$ gr. and brandy 1 oz.
6 "	80	26				Sleeping.
7 "	82	25		2		Sleeping.
8 "	84	24	99⅗	2	10	Dr. Manning called. Breakfast.
9 "	80	24	99⅗			Calomel 3 grs.; 10 grs. quinine.
10 "	90	26	99⅗			20 grs. bromide potass.; tympanites.
11 "	108	26	99⅗	2		Turpentine stupes applied; resting quietly.
12 "	108	30	100⅕	5		Dr. Manning called.
1 P. M.	108	26	100⅘	6		Brandy and milk.
2 "	108	24	101⅕	5		Passed urine, 10 oz.; 5 grs. quinine.
3 "	108	26	102½	8		10 grs. bromide potass.; brandy.
4 "	120	28	102½	10	5	Milk punch; passed urine; ice water.
5 "	114	24	102½	10		Spunge bath; lochia commenced at 5:30; very offensive.
6 "	108	24	105	5		Sleeping quietly.
7 "	90	28	103¼	10		Sleeping quietly.
8 "	112	28	102½	5		Brandy and milk; perspiring.
9 "	102	20	102½	5		Sleeping quietly.
10 "	102	20	99⅘			Still sleeping.
10½ "	102	20	99⅗			" "
11 "						" "
12 "	72	20	100½	2	10	Brandy & milk; discharge free & offensive.
Aug. 12.						Monday.
1 A. M.	84	20	100			Uterine douche; borolyptol and water; washed out oily discharge.
2 "	82	20	99½	2		Asleep.
3 "	80	20	99⅖	2		Still sleeping; brandy.
4 "	80	20	99			" "
5 "						" "
6 "	84	20	99			Waked up quite bright and refreshed.

Time.	Pulse.	Resp.	Temp.	V. V.	T. Iron	Remarks.
6½ A.M.	82	20	99			Breakfast.
7 "	82	20	98			Asleep.
8 "	80	20	98 4/5			Gave castor oil 1 oz.; turp't. stupes applied.
9 "	84	20	99 1/5		10	Passed considerable flatus.
10 "	90	20	99½	2		Vaginal douche; no lochia.
11 "	78	20	98 2/5		10	Soap enemater; large action from bowels.
12 "	78	20	99			Clammy sweat; bowels and bladder acted; brandy, milk, phosphoric acid.
1 P. M.	78	24	98 3/5			Sleeping; lochia returned; 10 grs. quinine.
2 "	78	20	98 3/5		10	Brandy and milk.
3 "	90	24	98 3/5			Tr. belladona gtts. 10; S. strich. 1/60 grain; phos. acid dil. 10 gtts.
4 "	90	24	98½			Dr. Manning called; supper, relished food.
5 "	90	24	99	5	10	Tympanites; lochia; feverish.
6 "						Brandy and milk; passed urine.
7 "	108	26	100	5		Sleeping.
8 "	90	24	100 2/5			Still sleeping.
9 "	108	24	100 1/5			" "
9½ "	90	24	100			10 gtts. tr. belladona.
10 "	102	20	99 2/5	3	10	Dr. Mathew called, rend. valuable assistance
11 "	90	28	99 2/5			Brandy and milk.
12 "	99	24	99½	4	10	Sleeping quietly.
Aug. 13.						Tuesday.
1 A. M.	90	26	99			Brandy.
2 "	96	24	98			Still sleeping; nursed child at 2:30.
3 "	92	27	99	3	10	Gave iced milk.
4 "	94	26	98			Brandy and milk.
5 "	86	24				Sleeping quietly.
6 "	90	20	98 2/5			10 grs. quinine.
7 "	90	20	98 2/5		10	10 gtts. belladona; strych. 1/60 gr.
8 "	78	20	99			Bowels and bladder acted nicely at 8.30.
9 "	78	24	98 3/5			Brandy; Dr. Manning's visit.
10 "	90	28	99½			Sleeping.
11 "	90	26	90			Milk and brandy.
12 "	90	28	99½	2		Ate dinner.
1 P. M.	90	28	100 1/5			Resting quietly.
2 "	90	24	99½	2		Dr. Manning called; 10 grains quinine.
3 "	90	24	100 2/5	3		Brandy.
4 "	90	24	100	3	10	Milk and brandy.
5 "						Sleeping.
6 "	90	24	100 2/5			Ate supper.
7½ "	84	24	99 1/5			Brandy and milk.
8 "	84	20				Passed urine.
9 "	90	24	100	3	10	Malt and brandy.
10 "	90	24	99 4/5			Sleeping quietly.
11 "	87	24	99			Still sleeping.

Time.	Pulse.	Respiration.	Temperature	V. Viridi.	Tr. Iron.	Remarks.
12 P. M.						Still Sleeping.
Aug. 14.						Wednesday.
1 A. M.	78	24	99 1/5			Brandy and milk.
2 "						Flow passing.
3 "						Sleeping.
4 "						Still sleeping.
5 "						" "
6 "	78	20	99	2	10	Malt and Brandy.
						Dr. Manning called.
8 "	78	20	99	2	10	Ate breakfast.
						She now says she feels much better; countenance looks much brighter; improved in every respect. Tenderness over abdomen scarcely noticeable; tympanites very slight; lochia very scanty but about normal; urine passed appears normal.
12 "	78	20	98 3/5	2		Bowels moved twice.
						Ate supper and a piece of cantaloupe.
7 P. M.	90	22	98 3/5	2	10	Brandy, milk and iron.
12 "	90	22	98	2		Sleeping quietly.
Aug. 15.						Ate breakfast; gave iron.
8 A. M.	78	28	98 3/5			Malt, milk and brandy.
1 P. M.	90	24	98 3/5			Malt and iron.
						Feels much improved; no tenderness on pressure over the abdomen; no tympanites; lochia scanty, milky and offensive; slight mamary secretion.
6 P. M.	90	24	98	5		Ate supper; sleeping.
11 "	78	20	98	2		Says she feels very well.
Aug. 16.						Brandy, ice malt.
6 A. M.	84	20	99 1/2	2	10	Hearty breakfast; lochia continues offensive but scanty; tenderness and tympany rapidly subsiding.
						Dr. Manning visits.
10 "	78	20	99	3	5	Continues to improve very fast.
9 P. M.	84	20	98 2/5			Has slept well this P. M.
Aug. 17.						
8 A. M.	78	20	98 3/5			Appetite good, bowels regular; Joan Hoffs malt with iron, half wine glass every four in ice water.
10 A. M.	76	20	98 3/5			From this time on she improved very fast, and was dismissed in a few days.

The treatment of Puerperal Fever is, perhaps, quite as unsettled as its pathology. I shall begin by observing that there are no specifics for Puerperal Fever, any more than for yellow fever, typhus fever, or typhoid fever. There is no disease which requires more acute discrimination in the adoption of means to an end; none which requires a sounder judgment, or more incessant watching, to combat every assault which may exhaust vital power. The main indications are to control and allay vital disturbances which the disease causes, and to control and abate secondary complications as they arise.

When the heart is pumping blood through the system at the rate of 120 or 140 beats per minute, argument is useless to convince you that the vital powers are being rapidly exhausted. It is plainly evident that great good is gained by lessening arterial excitement, without loss of vital power. There are several agents which are termed vascular sedatives, but the prince of all, most efficient and certain of this class of medicines is veratrum viride. Veratrum viride will reduce the rapid pulse of inflammation and of irritation, but not the quick pulse of exhaustion. Digitalis is the agent for the rapid pulse of exhaustion. The success in treating a severe case of Puerperal Fever will depend in a great measure on the promptness with which each symptom is met, both day and night, and not only faithful but intelligent, educated vigilance is demanded. It is not safe to leave the woman in the hands of the best of nurses for many hours, unless a *trained* nurse be found who is able to record pulse, temperature and respiration correctly, and one, too, who never "loses her head," and who has the intelligence and judgment to comprehend and modify directions as change in the symptoms demand. Except with such a nurse, and there are but few, I should not feel easy if I did not see a patient every three hours, and I should not think of allowing a night to pass without the patient being watched by myself or some other physician.

(a). I stated above that there were no specifics in the treatment of Puerperal Fever, but veratrum viride comes very close to being a specific. Do not understand me to say it is a positive specific, but I do consider it a very valuable and important agent for controlling vascular excitement and believe that by its judicious administration, many cases have been cured, which, without it, would have ended fatally. I feel positive that my case, which I report in this paper, would have died, had not the valuable drug been timely administered. I commence by giving three drops of the tincture of veratrum viride every hour. If a decided impression is not made on the pulse after two or three doses have been given I increase the dose by one drop until a positive effect is gained, and a pulse of 120, 130 or 140 brought down to 90 or 80. In patients who are very nervous the pulse will not be easily reduced below 100. The influence of veratrum viride should be steadily kept up until two or three days after all constitutional disturbance has subsided. After some little experience

you will learn just how many drops are necessary for this purpose in each patient. This medicine is less apt to produce nausea if given with a few drops of tincture of ginger in a little sugar and water.

If vomiting comes on, wait until the pulse begins to rise and then begin again with a minimum dose, but do not give up its use on account of vomiting. There is great danger of stopping veratrim viride too early and allowing the disease, as it were, to renew itself. It requires as much sound judgment to know when to stop the use of veratrim viride as to know when to prescribe it.

(b). It is also very important in this disease to quiet pain, to allay nervous irritation, and secure sleep. To this end I give sulph. morphia, ¼ gr., hypodermically. The patient should be closely watched, and the respiration should not be allowed to fall below 15 per minute. The morphia should be continued as long as the abdominal tenderness and tympanites remains.

(c). The next indication is to reduce the fever. It should be reduced to 100 or less. No patient is safe while it ranges above 100. Quinine and the mineral acids, cold sponging, alcohol and appropriate nutrition, are the most efficient antipyretics in Puerperal Fever. I find that quinine reduces the temperature better and more satisfactory than any other drug, and usually give 10 grains in the morning and 10 to 15 grains in the evening. For nervous irritation I usually give dil. phosphoric acid which speedily allays nervous irritation and acts specifically as a nerve tonic. A teaspoonful of dilute phosphoric acid to a tumbler full of water, with syrup of orange peel, makes a very pleasant drink, which I allow patients with impunity, *ad libitum*. Sponge baths, with alcohol and cold water, is another and most efficient antipyretic, and I direct its use at least twice a day.

(d). It is very important that proper stimulation be enforced. Stimulants should be given as soon as feebleness of the pulse is noticed, clamminess of the surface, or profuse perspirations occur. The quantity will vary greatly in different cases, and will call for the exercase of sound jugdment.

(e). Nutrition is another important point for special attention—as much good food should be allowed as can be retained, digested and assimilated. It should be liquid as far as possible—a variety of elements is necessary for healthy digestion. The patient should have an alternation of milk, eggs, gruels, beef-tea, mutton broth, chicken soup every three hours, day and night, in small quantities.

(f). The next indication is to combat local affections which may be developed. The uterus should be washed out with antiseptic uterine injections, using a double current catheter. My preference is carbolic acid, 1 dram to oii hot water every four to six hours, with a thorough washout of peroxide of hydrogen twice daily.

(g). While there is tympany and abdominal tenderness, the old time turpentine stupes should be kept up, but be careful or you will blister the patient's abdomen,

(h). When the tongue is covered with a thick pasty fur, with a good deal of vomiting and inability to retain nutrition; and bowels have not moved for two or three days, I administer 5 grains hyd. chlo. mit., with 20 grains of bicarbonate of soda. This is an efficient, but gentle as a laxative, causing no pain, and the only laxative I give a puerperal woman.

104 Broadway.

Quantitative and Qualitative Infection.

By A. H. Stewart, M. D., Richmond, Ky.

As is well known, pathogenic organisms, whether saprophites of parasites, like other poisons, vary in their toxic properties, from the most virulent poisons to those entirely inocuous, except under the most favorable circumstances. Like other poisons, too, their effect upon the system depends largely upon the quantity, and virulence of the organisms introduced, the mode of introduction, and the condition of the system when introduced. Of course, they differ from most other poisons, in that the chief source of danger from them is their capacity, under favorable circumstances, to multiply and increase their number in the system. But any one who has witnessed a number of epidemics, or endemics of any of the zymotic diseases, as measles, scarlatina, whooping cough, typhoid fever or dysentery, has noticed the striking difference in the type and form of the same disease in different epidemics, due in many instances to a difference in the virulence of the virus from some climatic telluric or atmospheric influence. They have also doubtless observed the equally striking difference in the severity of the attack, in different individuals in the same epidemic, in many cases, regardless of the difference in the susceptibility of such individuals, but due mainly to the difference in the quantity and virulence of the organisms introduced.

Quantity and Quality.—It has been demonstrated, that, if a virulent culture of tubercle bacilli be injected into a vein of a rabbit death will follow in a fortnight, but if the culture be weakened by age or dilution, before injection, the animal will live for five or six weeks. A quantity of diphtheria bacillus culture equal to one-fourth per cent. of the weight of a guinea pig will usually prove fatal to such animal in seventy-two hours, but if the quantity or virulence of the culture be reduced one-half, the animal injected with it will live twice as long. 0000005 grams of pure culture of tetanus bacillus will kill a mouce, weighing fifteen drams, while one fifth of this amount will only cause tetanic spasms in a mouse of the same weight. A pure culture of anthrax bacillus will kill a mouse injected

with it in twenty-four hours, but if the culture be attenuated by heat before the injection the animal lives much longer. The attenuation, too, may be so regulated, that, at a certain point it will kill a rabbit, but if carried a little further will not kill animals larger than mice. Small quantities of the capsule bacillus of Pfeifer will kill a mouse, but will not effect a rabbit, but large quantities of the same germ will kill a rabbit also. The virus of a rabid wolf is known to be much more virulent than the virus of a rabid dog. Forty per cent. of those bitten by rabid wolves have hydrophobia, while less than twenty per cent. of those bitten by rabid dogs have the disease. The virulence of the virus may be so increased, by repeated inoculations, from one animal to another, as is done in the Pasteur Institute for the prevention of hydrophobia, until after twenty-five generations of such inoculation the period of incubation is reduced from six to ten weeks, the usual time, to seven days. It is a well known clinical fact, that, the most fatal form of tuberculosis, the acute miliary form, most frequently results from the introduction into the system, especially into the blood current of large quantities of the tubercle bacilli, while in many instances the most chronic form of the disease begins with a few bacilli, confined at first to a limited area. While the difference in the virulence of the bacillus of true and pseudo diptheria, and the milder forms amygdolitis seems to be one of kind as well as degree, yet, the virulence of each may be so increased, or attenuated, by varying the temperature and composition of the culture media of the same till a more malignant, or less virulent form of the respective diseases to which they give rise will be produced. This, in a measure, is true of all infections. Thus, cultures of the diptheria bacilli, kept at a temperature of 39-½° C. and through which a current of sterile air is constantly passed begin to lose their virulence in two weeks, and at the end of four weeks are entirely inocuous, and fail to set up diptheria, when injected into susceptible animals. If, however, a susceptible animal be injected with some of these attenuated bacilli, together with virulent cultures of the streptoccocus of erysipelas a virulent form of diptheria will be produced, and virulent bacilli will be found in such animals. The virulence of these, and indeed of most organisms, may be partially or entirely restored by retracing the steps taken in producing the attenuation. Thus a slightly warmer or colder than normally required, or a slight change in the composition of the culture media, will arrest the development of some form of bacteria, while a return to the normal temperature and composition of the culture media, before the attenuation has been carried too far, will restore them to their natural condition. Some organisms cannot live without oxygen, while others cannot live with it, others, again, can live in the presence of oxygen, but flourish better without it, and still others can live without oxygen, but flourish better in its presence. Most organisms flourish better in a slightly alkaline culture medium, but they nearly all differ slightly at

least in the degree of alkalinity required for their most successful propogation. Most of them, especially the parasites, flourish best in a temperature ranging from 35 to 40° C, yet some require a much higher, and others, again, a much lower temperature. Some flourish well under a wide range of temperature, while others, as the tubercle bacillus, requires a very narrow range of temperature. This knowledge of the life history of different organisms gained by much pains taking investigation has led to a demonstration by actual experiment, that, whatever favored the multiplication or aggregation of pathogenic organisims, or increased their virulence, increases the danger of infection, and *per contra*, whatever opposes their multiplication tends to arrest their growth, or reduce their virulence, lessens the danger of infection, While each special organism possesses peculiarities of its own, and must be studied separately in order to learn the most favorable or unfavorable conditions for their most successful development, yet it may be said in general terms, that, the number and virulence of most pathogenic organisms increases with increased warmth, moisture cloudiness, stillness of the air and low altitude, and decreases with increased cold, dryness, sunshine, moving air and high altitude.

Mode of Infection.—The way the bacilli enter the system; too, has much to do with the character of the lesions, and the form of the disease. When tubercle bacilli enter the lung tissue, through the blood current, the location of the tubercles, and the character of the lesions, are quite different from what they are when they enter through the air passages. So, too, the renal lesions are quite different when the tubercle bacilli enter the kidneys through the blood current from what they are when they enter through the genito-urinary tract.

Anthrax bacilli when inhaled give rise to pneumonia, when taken into the alimentary canal as they are when cattle feed on grass previously grazed by infected cattle, the chief lesions are in the intestinal tract, and when introduced through wounds, as they are in wool sorters and cattle driver's disease, the disturbance is almost entirely local. Very much the same is true of tuberculosis. The local form is seen in scrofula, where the bacilli enter through the lymph channels, the intestinal form when they are taken in with the meat or milk and the pulmonary form when they enter through the air passage. Diplococcus pneumonia injected into the vein of a rabbit or guinea pig causes death by general septiceamia in twenty-four hours, but if injected into the trachea pneumonia is developed. It is now generally believed that true membraneous croupe is only true diptheria in the larynx, and that pseudo membraneous is only pseudo diptheria in the larynx.

Susceptibility.—But as animals, including man, differ not only individually in their susceptibility to zymatic diseases, but nearly all differ under different circumstances, perhaps the most important condition influencing infection with which we have to deal, and the one which we are

the most frequently called on to treat are the different conditions of the system, as manifested in different races, different individuals of the same race and different members of the same family.

It is universally recognized that Negroes, Indians, Irish, and most yellow races are particularly susceptible to scrofula and tuberculosis, and that the Chinese and Japanese and nearly all yellow races are more prone to leprosy than the white race, even whem thrown together in the same country, same climate, and even the same city. Negroes are also known to be more susceptible to small-pox, tetanus, trismus neonatorium and pneumonia, while they are less liable to diptheria, malaria and yellow fever than other races.

The death rate per 1,000 deaths from all causes in the United States, the census year, 1880, was for consumption—White, 126.2; colored, 139.1; Irish, 189.4; German, 123.6. Diptheria—White, 398; colored, 17.4; Irish 42.1; Germans, 72.7. Pneumonia—White, 82.5; colored, 105.5; Irish 89.1; Germans, 82.1.

Out of each 100,000 persons of each race living in New York City during the six years ending May 31st, 1890, there were 774 deaths from tuberculosis among the colord, 646 among the Irish, 329 among the Germans, 325 among the Freneh, 205 among the Americans and 98 amon Russian and Polish Jews. In Brooklyn during the same period the corresponding deaths from the same disease were; colored 531, Irish 453, Germans 296, French 253, Americans 181 and Russian and Poles 97. The deaths from tuberculosis, per 100,000 population of each race in the Cities of Baltimore and Washington during the census year 1890, were, colored 658, Irish 506, Germans 289.

This difference in the susceptibility to, and immunity from, certain diseases manifested in different races, even when thrown together in the same climate, same country, and even in the same city is of the greatest scientific interest, as it demonstrates that years, and especially centuries of unfavorable climate and hygienic surroundings may beget in a race or nation of people certain constitutional weaknesses, which predispose to certain diseases, and that like periods of favorable climate and hygienic surroundings may beget in a race or nation of people certain constitutional safe guards against certain diseases.

This is of especial interest when it is noticed that in some of the black and yellow races this susceptibility to, or immunity from, certain disease is in direct proportion to the depth of color in such races. But even this fact is not more important, from a scientific standpoint, than is the difference in the susceptibility of different individuals of the same race, or even of the same family. For in the case of races, the difference evidently depends upon such a difference in the details of the finer structure and vitality of the tissues as constitute this difference in the races,

while in the case of individuals the difference evidently depends upon a difference in the still more minute structure of the tissues.

While no gross anatomical or physiological condition has been described upon which this peculiar vulnarability either in the races or in the individuals could depend, yet recent researches have been fruitful beyond expectation in bringing to light many hitherto unknown important constitutents of the living organism, upon some of which, in all probability, these differences depend.

During these investigations the over whelming preponderance of evidence has pointed either to the difference in the essential constitutents of the protoplasm, the living matter of the ultimate morphological element of the body structure, the cells, or to a difference in the number of these cells themselves as the basic cause of this difference. Indeed, this seems to be the only logical solution of this vexed question. For since these constitute the physical basis of life, and since the mysterious phenomenom, called life itself, is believed to arise from certain forces, potential and kinetic, residing within the protoplasm of these cells it is but natural that we should look for some departure from the normal in these structures, or forces, for this difference in susceptibility. For if normally these represent the most perfect combination and arrangement of the fundamental, physical, chemical and electrical constitutents consistent with the highest degree of vitality, and deviation, either in the quantity or quality of these constitutents to that extent constitute disease. Not a specific disease, however, nor any special predisposition thereto without an exciting cause, the specific organism of the disease but defective matabolism, which enables pathogenic organisms to more readily invade the tissues, and set up disease therein. This biological defect, or as it were. pathological state, may be either inherited or acquired. As certain physical and mental characteristics are transmitted from parent to off-spring, so, too, the vital constitutents upon which these characteristics depend are transmiited; that is, as each of the millions of individual cells of which the living organism is made up depends for its existence upon a preexisting cell, it is obvious, that, to each generation of cells there will be transmitted certain properties and characteristics peculiar to the preceeding or parent generation of cells. As a stream cannot rise above its source, nor a primary force impart a secondary force greater than the original, so a potentially weak parent cell cannot transmit to succeeding generations of cells a strong potentiality.

Strickly speaking, it may be said, that, insanity is not hereditory, and yet unmistakable evidence of the disease are often traced through several generations of the same family. It is not insanity *per se*, however, that is transmitted, but a defective, imperfectly, organized quantitative and perhaps qualitative latent cerebral cell potentiality, which imperfectly distributes active or kinetic energy, and thereby gives rise to a lack of

equilibrium in the some of all these energies, the intellect. As a consequence, a shock, a blow or an attack of sickness, which would not disturb a normally constituted brain, will often unbalance such an unequally poised intellect. So it is, in transmitted susceptibility to the infections. For, it is not the disease that is transmitted, nor any condition that will even give rise to it without the presence of the exciting cause, the specific organism of the special infection, but it is weakened cell energy, either quantitative or qualitative, or both, so that in many instances organisms that would be inocuous to persons possessing normal cell potentiality, would be able, however to overcome the feeble resistance of such cells. This transmitted weakened cell potentiality may be still further weakened in the same way that individual susceptibility may be acquired by such conditions as tend to reduce normal cell vitality. This will occur when during the destructive and reparative processess, constantly going on in the tissues, the liberation of active circulating energy is in excess of that accumulated. This deterioration of active energy tends to weaken the quality of the latent or potential energy, and as a consequence a general deterioration of energies and forces follows.

The most favorable conditions for this katabolic process are: a reduction in the quantity and quality of the required amount of fresh air and wholesome nutritious diet to furnish sufficient material for conversion into normal energy; increased liberation of energy, due to increased exercise, elevated temperature or increased distructive metamorphosis; defective assimilation and impaired capacity to appropriate available energy to the needs of the tissues. In many diseases this susceptibility may be local as well as constitutional. Local susceptibility may be most marked in the mucous membrane of some, in the lymphatic glands of others, in the internal organs of others, and still in others the bones appear most vulnerable.

Recent investigations very strongly indicate that it is the function of the leucocytes, white blood corpuscles, to guard the portals of the body, destroy invading pathogenic organisms and prevent disease, and that susceptibility or immunity prevails just in proportion as these are present or absent, weak or strong. It has also been still more recently demonstrated that the quantity and quality of these leucocytes depend very materially upon the presence in the serum of the blood of certain protied substances and especially to the presence of the nucleins which are furnished by the multinuclear blood corpuscles, and which are known to be rich in protoplasm, and to possess certain powers of reproduction and recuperation, even after partial decomposition. Here a few clinical illustrations may serve to show the influence of impaired nutrition on the production of a few of the infectious diseases, viz.:

Tubercle bacilli may be so attenuated that they are inocuous to healthy animals, but will produce tuberculosis in animals already suffer-

ing from some supurating foci cultures of streptococcus, and other germs, may be so attenuated as to be rendeaed inocuous to healthy animals, but if to these animals tuberculin be administered they become susceptible to the action of these germs. If rabbits, suffering from chronic tuberculosis, be injected with streptococcus, inocuous to healthy rabbits, there is a rapid extension of the tubercular process. Healthy pigeons are not susceptible to the action of the bacillus of spleenic fever, but if weakened by starvation they succumb upon exposure. If starved only six days before and then fed bountifully after inoculation, they recover, but if starved longer, or not fed much afterwards, they die soon. White mice, ordinarily free from the action of the bacillus of glanders, succumb upon exposure, if glycosuria be first set up in them, by the introduction into the system of an excess of sugar. White rats, usually inocuous from anthrax, when weakened by fatigue, as has been done by causing them to walk a wheel for several days, fall victims to the disease upon exposure.

Cholera has been known to pass healthy persons in the same community, and even in the same house, and attack drunkards, and especially those who had been on a recent debauch, and whose alimentary canal had been converted into a veritable culture soil for the development of cholera bacillus. Cultures of cholera bacillus, introduced through the stomach of some animals fail to set up the disease, but if the acid in the stomach be neutralized, or rendered alkaline, or the cultures be injected into the intestines below the stomach, all the symptoms and lesions of cholera are produced. Typhoid fever and dysentery are known to more readily attack persons whose alimentary tract has been recently irritated by alcoholic liquors, or large quantities of indigestible substances.

Dogs and rabbits in health are free from that terrible disease known as symptomatic anthrax, but if the bacilli, or their toxines be placed in a twenty per cent. lactic acid solution before injection, the disease is set up in these animals.

Diplococcus pneumonia injected into the trachea of certain animals cause no change, unless the mucous membrane be first irritated by exposure to cold, then such injections produce typical croupous pnenmonia. This is believed to account for the frequent occurence of pneumonia in the winter and spring of the year. The specific organisms of the disease as is the case with many acute diseases of the upper air passages, may be present and quiescent until a favorable opportunity is offered by some deterioration of the tissues by cold or other local disturbance. By this means tuberculosis is often grafted on to other acute, infectuous, diseases, as measles, scarlet fever or whooping-cough—or the germs of tuberculosis may remain latent in the tissues for an indefinite period, and then become active, again, upon the intervention of some of these diseases which disturb their habitant, or render their surroundings more favorable.

Gin Accidents and Their Treatment by the General Practitioner.

By P. F. Ellis, Bello, Texas.

In writing of Gin Accidents I desire to be understood as referring to those wounds resulting from the hand and frequently the arm coming in contact with the saws of the cotton gin, while the latter are in motion. And the general practitioner is the doctor who practices the healing art in all its branches, and obstetrics thrown in.

For obvious reasons these accidents only occur in the South. For convenience the majority of gins are located in small towns, hamlets and rural districts, consequently the greater number of gin accidents occur at points remote from cities and centres of population where surgeons who, equipped for any operation, may be found. Furthermore, the wounds possess sufficient peculiarities to entitle them to be classed by themselves. That they are fraught with considerable danger to human life a reference to the columns of the daily papers, during the ginning season, will abundantly prove, while the number of empty sleves of healthy, able bodied young men, warn us to adopt some measure, if possible, to lessen the death rate, and next to save the hand and arm, or as much thereof as can be saved, believing, as I do, that a crippled hand is better than no hand at all.

In vain we consult our text books for guidance; not a line do we find upon the subject, for the reason, I suppose, as above given—gins and surgeons are not often found in the same locality. The peculiarities of these wounds are, their number usually from a half dozen to a score, parallel with each other diagonally across the fingers, palmer surface of hand and the inner side of the fore-arm—it is rare indeed that the injury is to the back of the hand and arm, in fact this region usually escapes injury, while the inner side of the hand and arm are ginned into mincemeat. By reason of the circular shape of the saw the wound is much deeper at its center than if made with a straight edged instrument. Every cut is a deep, ragged, bloody chasm, the walls on each side are composed of hanging shreds of flesh, the debris of torn blood vessels, tendons, etc. Closely intermingling therewith are lint, fragments of cotton, seed, hulls, bones, &c. The whole presenting a singularly repulsive, bleeding mass. Now what is to be done with one of these cases. I will give you my method of procedure.

First, I go about checking hemorrhage, for these cases are bleeders from the word go. Place a tourniquet, improvised if I haven't one with me, above the upper arterial wound. Secure the boldest spouting vessel with artery forceps, and if I have only one pair of these useful instruments and there be more points needing attention I use the spring clasps attached to my suspenders, and find them useful auxilliaries. Next place ligatures where required, remove the tourniquet, give the patient a hypodermic of morphia, then with hot water cleanse the wound, carefully check the oozing blood. If necessary give a hypodermic of strychnia, and then

proceed to examine the extent of the injury, and dress the wounded member in the following manner:

With a firm well padded past-board splint, upon which the uninjured side of the hand and arm are placed, then with dressing forceps arrange as nearly as possible all fragments which have any attachment whatever, and with strips of cloth, 1x101 inches, previously saturated with castor oil, I wrap each finger separately, then cover the wounded surface of the hand and arm with the same kind of short narrow oiled strips, with a liberal supply of absorbent cotton over the oiled dressing, and a roller bandage over all the first, and the dressing is now completed.

You will observe that I use no carbolic acid, iodoform or iodoform gauze, neither do I use bichlorides or any other reputed antiseptic, and it may not be out of place for me to give my reasons for neglecting these orthodox prerequisites to all surgical procedures.

In the first place it is almost an impossibility to render these wounds aseptic, and the gaps must be to a large extent filled by granulations. The use of carbolic acid hinders to some extent the control of the oozing of blood. Iodoform is not safe as a dressing on account of the danger of poisonous absorption by reason of the large surface exposed. The objection to the gauze is it adheres to the raw flesh with such tenacity that delicate adhesions or granulating cells are likely to be torn or destroyed at the second dressing, and for the opposite reason the oiled strips are used the ease with which they may be removed. This second dressing, which should be done at from 24 to 48 hours after the primary dressing has been applied, is an important period in the case, for it is then that the question of amputation of either fingers or hand may begin to be considered. Of course parts of fingers and hanging shreds of flesh, hopelessly lost, may be trimmed away with the scissors, while if at all admissible, amputation of the arm or hand may be further postponed.

And astonishing results in the way of establishing collateral circulation may be witnessed, although the radial and ulnar arteries have both been severed in several places, while the palmer arches have been destroyed, yet the circulation of the back part of the arm from the heads of the biceps to the finger ends is dependant upon the larger arteries which, for the main part, lie along the front or inner part of the arm, at short intervals give off branches which penetrate the arm, and so freely do they anastamose with each other that a continuous artery extends from the Axillary outward, so that in ligation of the Brachial very little disturbance is manifested in the nutrition of the extremity beyond.

With the foregoing ideas carried out I believe many lives may be saved and not a few arms and hands may be partially preserved. I would call your attention to the fact that I have said little about amputation at the first visit. I did this on purpose, as here is where the greatest danger lies. Do not amputate on your first visit. Why? Because if your patient would die without the operation he will the more certainly die

with it. He is suffering from pain, fear and shock; the vital forces being much lowered from severe hemorrhage.

Prof. Likorsky, in an article in Modern Medicine for August 31st, 1895, says that "pain, fear and shock, though apparently widely different, have much in common. Shock and pain are always accompanied by the following series of constant phenomena:

1st. Alteration of the pupils. Mydriasis isla reflex symptom due to excitation of the sensitive nerves, and is always present in any painful irritation.

2d. Weakness of the voluntary muscular system, inhibition of the motor centres due to painful irritation of the sensitive nerves, and analogous to the arrest of the respiratory on the affected side in pleuro-pneumonia.

3d. Modification in respiration, also due to the same cause.

4th. Cardio-muscular symptoms, the vaso motors being especially sensitive. Painful irritation of the sensitive nerves causes a vascular spasm, soon followed by vaso-motor paralysis. This in turn leads to a fall in blood pressure, and diminishes the number and strength of the heart's beats.

5th. Alterations in nutrition and body-temperature. These depend on trophic troubles due to shock or pain. Arrest of *nutrition exchanges leads to respiratory disturbance, the blood being too poor to properly stimulate the respiratory centres.*

6th. Alterations in the psychical functions; these like the physiological functions, are more or less depressed; even pain, the primary manifestation, is much diminished—a fact which led Dupuytren to remark that too great a loss of sensibility could cause death as readily as too great a loss of blood. Fear, by its objective signs, is closely allied to shock. It is the prototype of all psychical emotions, and the same symptoms may be observed in them. Excessive fear may lead to death, as well as pain and shock. Surgeons have met with many cases of sudden death in nervous patients before an operation.

Another factor of importance in these conditions is the concentration of the attention upon the impression expected. To this may often be attributed the sudden death occurring in the course of insignificent operations, such as catherization of the œsophagus, bladder, etc., in nervous patien.ts The conditions, therefore, of pain, fear and shock, coupled with a concentration of the thoughts upon the expected operation greatly increases the danger of the patient, and the amputation should, therefore be postponed.

Again, the administration of chloroform, or its effects rather, either immediate or remote, to a patient who has recently lost a large amount of blood, is extremely hazardous, a point which I believe is not considered, by the Hyderabad commission. Do not amputate while a patient is suffering from shock; it will not relieve pain, and the only advantage is a clean wound. All who die have had amputation performed—none die from sepsis.

PYROZONE.

(3 per cent. Aqueous Solution.)

THE name PYROZONE is applied by the manufacturers to absolute H_2O_2. The 3 per cent. aqueous solution answers to the tests of the new U. S. Pharmacopœia, with the additional advantages that it is pressureless and permanent, losing none of its energy until used. It is far superior both in exactness of strength and keeping qualities to the usual strength of peroxide of hydrogen. Dr. Bansford Lewis says: "Pyrozone is certainly an advanced step."

DIURETIN.

(Knoll)

THIS valuable diuretic has been extensively used by a great number of prominent practitioners, among whom may be mentioned DuJardin-Beaumetz, Masius, Demme, Erb, Keyes, Babcock, Herrick, Henderson and many others, in the treatment of **Dropsy, Heart Disease, Scarlatinal Nephritis, Rheumatism,** and as a general **Diuretic.**

TARTARLITHINE.

A New Remedy for GOUT and RHEUMATISM.

A prominent Physician writes: "I have used Tartarlithine in the treatment of about a dozen cases of my own with results that are little less than wonderful. The characteristic feature of its action is the rapidity and promptness with which patients improve under its use. An improvement is noticeable within 24 hours."

EXALGINE.

(Analgesic.)

HAS been extensively employed in **Rheumatism, Neuralgia, Cephalalgia,** etc., and in the treatment of **Pain** generally.

Exalgine is largely used at the present time in Germany in the treatment of **Chorea,** for which it was originally recommended by MONCORVO, and extensively used by LOWENTHAL, of Berlin, and DANA, of New York. The dose should not exceed 2 or 3 grains three times a day at first.

Literature on the above, also on Albolene and Albolene Atomizers, Pyrozone Atomizers Comp. Stearates, Pulverflators, McK. & R. G. C. Pills, Fluid Extracts, &c., furnished on applying to

McKESSON & ROBBINS,

Manufacturing Chemists, - - 91 Fulton Street, - - NEW YORK.

A Surgical Triumph.

A Remarkable Surgical Case of a Severe Burn Treated with Urguentine

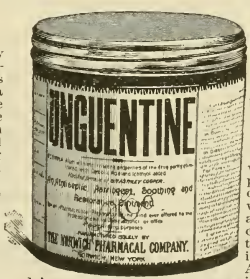
Healing Without a Scar.

OFFICE OF H. ENTON, M. D. 303 Clinton St. }
BROOKLYN, N. Y., Jan. 23, 1894. }
NORWICH PHARMACAL CO., Norwich, N. Y.

GENTLEMEN:—I really owe you an apology for not sooner communicating to you the result achieved by me with **Unguentine.** I was obliged to use the entire box in the case of a lady who badly burned one hand and arm, the injury extending above the elbow. I saw the case three days after the wounds had been ignorantly dressed, and the entire superficial area of hand and arm was one foul smelling aggregation of discrete and concrete ulcers, fœtid in the extreme and beginning to slough. After careful washing with warm water, **Unguentine** was applied on sections of old linen, each section about six inches long and two inches wide, strips of this conformation enabling me to secure contact at all points for the **Unguentine.** Then a broad roller bandage was used to envelop the smeared sections. This operation was repeated every third day, and in twelve days the arm was well, without a slough, without scar tissue and without contraction, and presenting a new pink skin that I regarded as a **surgical triumph.** The factor disappeared after the second application and the pain also.

This is my experience with **Unguentine,** and you are welcome to use it as you please.

H. ENTON, M. D.



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An alum ointment with the irritating properties of the drug eliminated, with carbolic acid and ichtyol added, combined with Petrolatum base. Modified formula of Sir Astley Cooper. Used in the leading hospitals and dispensaries, and prescribed by eminent surgeons throughout the country.

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We invite the most critical comparison of Unguentine with such dressing as you have been using, **Try it.** Samples and clinical reports from leading surgeons throughout the country sent upon request.

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Containing the Essential Elements of the Animal Organization—Potash and Lime;

The Oxidizing Agents—Iron and Manganese;

The Tonics—Quinine and Strychnine;

And the Vitalizing Constituent—Phosphorus; the whole combined in the form of a Syrup with a SLIGHTLY ALKALINE REACTION.

IT DIFFERS IN ITS EFFECTS FROM ALL ANALAGOUS PREPARATIONS; and it possesses the important properties of being pleasant to the taste, easily borne by the stomach, and harmless under prolonged use.

It has Gained a Wide Reputation, particularly in the treatment of Pulmonary Tuberculosis, Chronic Bronchitis, and other affections of the respiratory organs. It has also been employed with much success in various nervous and debilitating diseases.

Its Curative Power is largely attributable to its stimulant, tonic and nutritive properties, by means of which the energy of the system is recruited.

Its Action is Prompt: it stimulates the appetite and the digestion, it promotes assimilation, and it enters directly into the circulation with the food products.

The prescribed dose produces a feeling of buoyancy, and removes depression and melancholy; *hence the preparation is of great value in the treatment of mental and nervous affections.* From the fact, also, that it exerts a double tonic influence, and produces a healthy flow of the secretions, its use is indicated in a wide range of diseases.

NOTICE--CAUTION.

The success of Fellow's Syrup of Hypophosphites has tempted certain persons to offer imitations of it for sale. Mr. Fellows, who has examined samples of these, **finds that no two of them are identical,** and that all of them differ from the original in composition, in freedom from acid reaction, in susceptibility to the effects of oxygen when exposed to light or heat, **in the property of retaining the strychnine in solution,** and in the medicinal effects.

As these cheap and inefficient substitutes are frequently dispensed instead of the genuine preparation, physicians are earnestly requested, when prescribing the Syrup, to write "Syr. Hypophos. **Fellows.**"

As a further precaution, it is advisable that the Syrup should be ordered in the original bottles; the distinguishing marks which the bottles (and the wrappers surrounding them) can then be examined, and the genuineness—or otherwise—of the contents thereby proved.

Medical Letters may be addressed to

Mr. FELLOWS, 48 Vesey Street, NEW YORK.

The Charlotte Medical Journal.

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Articles intended for the Original Department of the Charlotte Medical Journal will be accepted only with the understanding that they are contributed to it exclusively.

THE IDEAL AND THE IDLE SPECIALIST.

There are at least two sides to the question of specialism in medicine, and it often makes a difference in our judgment of the matter upon which side we stand to make our observations and deductions. The faulty impression that in the pursuit of a special practice all the good things of a medical career are alone to be attained has had a tendency to bring, perhaps, too many men into competition in certain lines. Honest specialism never means an abundance of large fees and no work. Success is only achieved after years of patient and well directed effort, and he who expects to attain a distinguished position must possess peculiar qualities and qualifications.

The ideal specialist, after having been engaged in general practice for a period sufficiently long to become practically familiar with the family physician's and the patients side of the question, begins to work exclusively in that branch for which he has special aptitude and facilities, and for which he has been specially educated. He then confines his practice to this line, and though perfectly qualified to treat other diseases, refuses to do so.

Laboratory and hospital work should suppliment the private practice so that investigations can be carried out which will be of benefit to all. Dr. Price is quite right when he says that specialists should not spring up like mushrooms. The process of development must be slow and thorough, and this suggestion is a good one, that before begining on a special line, the well educated physician should first be a general practitioner in the country and then a general practitioner in the city.

He would then undoubtedly have him remain in the city, for it is here alone that specialists should, or indeed can, properly exist, where institutions of healing and learning are large and well established. The ideal specialist is never an idle man. His work is difficult and constant. In the early years of exclusive practice, a vast amount of investigation, experimentation, hospital and laboratory work, must be pursued. In after

years the results of study must be given to the world in writings and records. He must be zealous, upright, studious, and constantly striving to advance science. The specialist who sits in his office idly waiting to be appreciated will have many opportunities to envy the position of his next door neighbor, seated by the driver's side in the buggy, calling the whole day through, from house to house.

The relative positions of the family practitioner and the specialist, and their dependency upon each other, are becoming better understood in this country, and the opposition of the former to the latter, which a few years ago was noticable, is rapidly disappearing. It must be confessed that medical journals, writing, as their editors sometimes do, to please the greatest number have helped to foster a feeling of antipathy. The special and the general worker are necessary to each other, and in working for each other's benefit, must work for the patient's best interest.

Few specialists reach the high ideal, and some are idle, but their existence in the present condition of civilized and city life, with scientific medicine making the strides it does, is a necessity, and their work should receive proper recognition aud encouragement.

SOME POINTS IN THE MANAGEMENT OF CHILD AFTER BIRTH.

A subject of prime importance, but which appears to be too inadequabely considered by the general practictioner and obstetrician is the treatment of the child after birth. A few points are of interest in this connection. After severing the cord, it should be allowed to bleed for several minutes, at least long enough for the ambilical vessels to empty, then tied with an aseptic ligature and the stump dressed aseptically. The physician usually gives instructions to have the child washed immideately upon its entrance into the world, the fact being disregarded that the abode occupied by it for nine months had a temperature much higher than the new one. Not unfrequently the new comer at this time has sown seeds of future trouble by the sudden transition from a warmer to a colder state. Many children are washed to death as it were. Immediately after ligation of the cord the child should be wrapped up in soft fine flannel, care being taken to cleanse the eyes to prevent possible infection (when the vagiua may have been antiseptically douched during labor, as should be done in all cases) then placed to the breast, the object of which is to fold viz: to assist in inducing uterine contractions and at the same time to teach the child to nurse as early as possible. It should not be washed under twelve hours at least; if necessary a longer time should elapse, and then with water of blood-heat and quickly, not with the object of "getting it perfectly entirely clean," particular attention should be paid to the application of the belly-band, as proper abdominal support may prevent umbilical hernia, this allowing it to become acclimated so to speak. Indeed if the child be weakly it should not be washed every day, every two or three days being often enough. If the child does well, within ten days to two weeks, if a male he should be circumcised.

CLEANLINESS DURING MENSTRUATION.

It is the solemn duty of the mother or one in loco parentis to carefully, seriously inform her daughter of certain physiological functions, that naturally come to the female sex in the course of time, and not permit this important information to be imparted by improper and dangerous persons, who may treat of them in a frivolous, immoral and insinuative manner. The girl should be prepared for these changes and instructed how to take care of herself. It is very wrong to instil into her such nonsense that menstruation is a curse or punishment. Treat it as a very material fact; when she grows older if she so desires, she may indulge in speculation about it. A female at the menstrual period, especially, should observe the strictest rules of hygiene and cleanliness. The use of sponges and similar devices should be discountenanced and any of the various approved anteseptic napkins employed. As a rule the young girl should be taught to take a hot vaginal douch at least once a day during menstruation, preferably at night, not only for the sake of cleanliness, but also for the comfort of others. Many girls at this time are nuisances to both themselves and their associates. There is no reason why the vagina and genitalia should not be kept as clean as other parts of the body and without unnecessarily douching the thoughts too much to them. If the water with or without a mild anteseptic be of blood heat and ordinary care used, there will be no danger of "taking cold" or of checking the flow, If the person is quite young and for sufficient reasons fear that thought may become too subjective, whatever attention necessary may be given by the mother. The want of cleanliness of these parts, no doubt in many instances, gives rise to irritation which may develop dangerous habits and perhaps some diseases. The idea that certain subjects should be tabooed, even this mentioned at the proper time and place and by proper persons is entirely erroneous and many have suffered unnecessarily from this mock modesty. It remains with the medical adviser to correct this as well as other mistaken and fallacious views. The necessity of the physician being a gentleman in the highest acceptation of the word in this connection is apparent to all.

THE MISSING LINK.

This is the title of a publication whose January number has just been received from Los Angeles, Cal., devoted to health without medicine and stretchings of the rectum, Upon the outside cover is the picture of a man with side whiskers. It is not explained whether or not the title refers to the subject of this drawing, Without claiming any mysterious power a "diagnosis is made by intention," all disease, it is stated, is an effect of adhesions at the nerve centres of the body which are situated in the rectum. To cure any complaint, one has but to examine these "focal"

nerves which are "in sight" and stretch them with the "dilator." The way the inventor of this instrument hit upon so happy an idea and founded his advanced practice, which is fast driving physicians, medicines and medical schools to the wall, is instructive.

While dissecting in a Chicago medical school over eight years ago, a pimple was noted upon the face of the corpse. It was decided "to dissect this and trace its nerve as far as possible, being red like the pimple, it was carefully traced down the back, and found to be inflamed all the way to its terminal in the rectum." Rectal dilatation to the size of the wrist is a cure, we are told, for all pain or congestion along the course of the nerves. Even "at birth the circulation begins with the focal nerves" (*fæcal* is probably intended). "The finger inserted in the rectum to clear it liberates these nerves, supplying blood to the lungs, and the child breathes without an effort."

Thus science advanced and every day brings us something to be thankful for.

PROFESSOR ROENTGENS' DISCOVERY.

A new photographic invention by a professor in the University of Marzburg, Germany, is attracting much attention from the medical profession in common with others interested in scientific advances. Indeed if all is realized which is now hoped from this newly discovered process of photographing in a vacuum made luminous by an electric current Surgery will perhaps benefit as much, or more, than any other branch. Already foreign objects imbedded in the hand, fractures and diseased bone have been thus demonstrated. The invention seems to have been the result of some experiments in passing electric currents through a cylinder from which the air had been exhausted in a completely darkened chamber, when it was found that the luminous action produced certain reductions in a surface covered with cyanide of platinum. This action was not arrested by certain opaque objects, such as wood, paper, and skin, but was stopped by metals in varying degree and by bony substance, so that a photograph of the hand, showed the bony outlines alone. The intensity of the light is such that objects can be photographed through a closed door, and subsequent trials have shown the location and form of coins and keys in a thick pocket book wrapped in black paper is possible.

The light obtained in this way is not subject to the laws of reflexion and refraction and an interposed prism has no influence.

Professor Wright of the Yale Sloane Laboratory has already confirmed many of the claims of this remarkable method of photographing the invisible and there seems to be strong hope that with the perfections which the discoverer thinks possible, we may yet arrive at a point where we can locate bullets, and pathological processes, at least in the extremities.

If we are doomed to disappointment in this as we have so often been in other matters which promised at first to be of benefit to humanity, we may still possess ourselves of a vaccum kodak to keep upon the office desk and take snap shots at those of our patients who are slow about coming to time, since we have it on good authority that if their pocket book contains coin it will *bring it out.*

TREATMENT OF ECZEMA.

Eczema is one of the most common and also one of the most obstinate skin affections which the general practitioner meets in his daily practice. There is a constitutional diathesis as: Scrofulosis, Rhachitis, poor nourishment, etc., but the principal cause is always direct irritation of the skin. Thermic irritation is caused by the rays of the sun; other ones are produced by sweating, the urine, improper care of skin, drug eruption by mustard, turpentine, arnica, carbolic or other acids, etc. Washerwomen, cooks, physicians, dyers, workmen in factories where aniline dyes are made, are very prone to eczema. Even some parasitic diseases like pediculosis, scabies, etc., may produce eczema. We differentiate between acute and chronic eczema. In the acute stage all the characteristic signs of inflammation as redness, swelling, rise of temperature and pain are present. It is impossible to give a single definite and complete picture of eczema in all its phases, but all the variations are primary, referable to four kinds of elementary lesions. The eruption may be vesicular, pustular, papular and erythematous, it may produce scales and scabs, it may be universal or regional as head, face, genitals, legs, with enlargement of veins, most commonly called salt rheum. If there is a scrofulous diathesis we may give cod liver oil, arsenic, iron, etc.

A useful prescription is the following:

℞ Liquor Potass. Arsenitis..... ℥ iiss
Tin. Rhei.....
Elixir Ferricum Calisaya.....aa..... ℥ i
Syrup Limonis..... ℥ i
Aquæ Menthæ,.....q.s-....to..... ℥ iv
D. S.—Every 3 or 4 hours a teaspoonful.

But the remedy has to be given for quite a while. If the eruption is caused by drugs, we have to stop their use. In infants who have been kept unclean, and where intertrigo, and in consequence lymphanginitis, abscesses, furunculosis have been caused, frequent bathing and continual cleanliness and anointing the body with a weak ointment of lanoline and oxide of zinc (1-100) will insure success.

Kaposi, Flebra and other physicians are against water in any form, but Lassar, another eminent authority, is for bathing well in some very intractable cases. The writer of this article has found that the latter is right. The treatment most in use is dusting the parts with bismuth,

oxide of zinc, talcum, lycopodium, etc. Against the troublesome itching we may use: oil of menthol, alcohol, a half per cent. solution of ammonis aceticum, some water and glycerine, equal parts.

In chronic eczema, we have to remove the crusts, best accomplished with cod liver oil. The following formulæ will be found useful:

℞ Hydrargyrum præcipitatum album..... ℥iiis
Vaselini liquidæ..... ℥ii
Lanolini.....q. s..... ....aa..... ℥iv

℞ Zincum oxidatum..... ..... ℥ii
Vaselini liquidæ..... ℥iv
Lanolini.....q. s.....aa..... ℥vi

Eczema of the face:

Acidum salicylicum.....
Ichthyoli..... .....
Glycerinæ.....aa .... ℥iss
Spiritus menthæ pipiritæ..... ℥ii
Alcohol.....q. s.....pa..... ℥vi
D. S.—To be applied with a camels hair brush.

Eczema of the hand is best treated by thorough washing and the following ointment:

Vaselini.....
Lanolini .....
Oleum oliverum.....
Glycerine.....aa..... ℥ss
Dermatol.....q. s..... xviii

In a very obstinate case where the eczema was produced by carbolic acid, the above was used by me with entire satisfaction.

In eczema of the rectum Rhagades Suppositorie of cocoa butter and oxide of zinc, with some cocain or belladonna will be serviceable.

INSIST ON A FAIR FEE.

"I never send for Doctor Smith unless I fear that I am very sick or that I may have a protracted illness. Dr. Jones calls at a dollar and I always send for him for slight disorders." What greater compliment could Dr. Smith receive, and how slow is the progress of Dr. Jones from the above commonly heard statement.

Large numbers gauge a man's capacity and skill entirely upon the fee. Dr. Jones may be a well read and a most practical physician, yet he will not be appreciated until his fee grows to meet or exceed that of Dr. Smith.

Your patient is not getting on to suit his friends and they advise him to leave a town of say one hundred thousand and seek medical or surgical aid from some men in the East, who will not look at a patient under a twenty dollar bill. Aside from this your eastern friend will invariably have some pet formula or plan of treatment to recommend and you are ucky to be able to hold your patient upon his return. By a fair fee we

do not mean an exorbitant price, but one large enough to convince the patient that it is no cut rate on the ordinary price. If your patient finds himself too poor to pay the regular fee, it is far better that you treat him gratuitously than to accept a half fee. He will then not brand you as a cheap rate doctor, but as a charitable gentleman, deserving of patronage from such of his friends as are able to pay your regular fee.

It is a well known fact that a patient is much more apt to sing your praises when he can feel that he owes you nothing, be this either as a result of a good fee, or services rendered without compensation.

THE HALF HAS NEVER BEEN TOLD.

Ever since the dawn of history, and for ought we know, long before alcohol has been made, in some of its forms, by some process, and for about the same length of time, it has been prescribed and recommended by practicing physicians The peasant in his cot, the real man in his wigwam, the African under the burning Sun of the Equator, the Esquimaux in his mantle of furs, in the land of perpetual ice and snow, and the king and potentate in their mansions of wealth as they revel luxury. It has been prescribed, recommended and used for every thing, by every generation, by every nation, under the Sun in the canded conviction that it was a boon to suffering humanity, a panacea for every pain, a balm for every wound, but we live in a day of scientific demonstration of physological investigation of thereputical research. experimentation has proved conclusively that it is in no sense a food, and aside from its anodyne anasthetic and paralysent effects it is not a medicine. But is the direct parent of more mothers tears, and famished children than all other causes combined, fifty per cent. of all insanity, from 30 to 80 per cent. of all adversity, 75 per cent of all criminals, 96 per cent, of all tramps and worthless youths of our land are caused by it, it is the indirect but prolific parent of 90 per cent. of all syphilis, either inherited or acquired, 50 per cent. of all gonorhœa, and this loathsome product should not be excluded, on account of royalty or position in society, when we are call upon to administer to the relief of suffering humanity, afflicted or infected with what might be the out-growth of syphilitic or gonorrhœal infection, and all physicians of any considerable experience, know they are many. I confidentially believe that alcohol is to day, man's worst enemy and the nations greatest curse, and that it will become more and more dangerous, as generation succeeds generation and that we must either destroy this hydra-headed monster, or be destroyed by it. There is no profession nor class of men, that can bridal and control this monster evil, except the medical profession the united clergy, with few exceptions, have been pounding away at him, for lo these many years, but they have been pounding him on the tail, that being the only part of satanic anatomy, accessable to their lash, the

practicing physicians of this country, 105,000 strong could strike him between the eyes, and bring him to his knees the first stroke, and quickly dispatch him. Will you do it?

MEETING OF THE NORTH CAROLINA MEDICAL ASSOCIATION.

The next Annual Meeting of the N. C. Medical Association will convene in Winston-Salem on Tuesday morning, May 12th.

The selection of these twin cities as the gathering place for our time honored and hard worked body of useful citizens was a wise one, and the physician, who by chance attends this meeting, will not only reap beneficial fruits from the Society meeting alone, but will return home a brighter and better man after meeting and associating with these hospitable people. It is needless for me to discuss the necessity and great importance for physicians to attend these meetings.

The record of our society is good. It has accomplished a great and noble work, which is clearly demonstrated by the dignified and honorable position it has attained. It is left to us to maintain and uphold this elevated position, and this can only be accomplished by large and congenial sessions.

Among the many topics of interest to be discussed at this meeting, probably the one of greatest importance is that of filling the vacancies of three members of the Medical Board, viz.: Drs. W. H. Whitehead, of Rocky Mount; L. J. Picot, of Littleton, and Geo. W. Long, of Graham, whose terms of office expire at this session.

INFILTRATIVE ANÆSTHESIA IN SURGERY.

One of the most important elements in all, if not the most essential in some, operations is the handling of the anæsthetic. From observation and reports there can be no doubt that there are ways and ways of doing this and experience, care and skill are necessary in the production of safe anæsthesia. If the surgeon can lessen the danger, at the same time eleminating the fear, and in no way interfering with the effectiveness of the operation, he becomes a philanthropist and conservator of human life.

Unquestionably the fatal terimination of many cases, not only upon the table, but within a few hours or days after the operation have been due to the effects of the anæsthetic, especially ether, in some it was carelessly administered, in others apparently unavoidable.

It is not the cutting that many patients dread the most but the anæsthetization. It is not always the shock of the operation but this fear of "going to sleep" that not unfrequently causes disastrous results. Time and again patients are deterred from undergoing an operation on this account. In the infiltration or intradermic method as advocated and

practiced by Schleich, these objections are overcome and by it all, or nearly all, of the minor, and many of the major operations are performed without pain and with safety to the patient, who is entirely conscious during the procedure.

It must not be mistaken for the ordinary injection of cold water or salt solution nor for the usual cocaine injections. The solutions are composed of morphia, cocaine and sodium chloride of varying strengths which are termed strong, normal and weak, the morphia and salt being of the same strength in all, while that of the cocaine varies. In 100 minims of water of morphia there is $\frac{1}{4000}$ of salt $\frac{1}{500}$ part in the 3 solutions while of the cocaine there is $\frac{1}{500}$ part in the strong, $\frac{1}{1000}$ part in the normal, and $\frac{1}{10000}$ part in the weak. The solutions are perfectly safe and can be injected into the skin, and into the deeper structures if requisite care being taken not to injure any important structures. The effects last about twenty minutes, when necessary more of the solution can be injected. Its preparation and use should be thoroughly aseptic and a rigid enforcement of the rules of asepsis and antesepsis in the preparation of the patient and during the operation should be observed. The method has come to stay, and as time passes will meet with increasing favor. Every physician and surgeon should be thoroughly versed in its use and application.

DUTY OF PARENTS.

In reading the other day, I found an article on the stables of Belmont and Vanderbilt, how infinite pains are taken by improving their breed of horses. They select the air most favorable to their health and growth. They construct their enclosures with exact references to their needs and habits, and gauge the condition of perfect production with all the accuracy of a mathematical calculation.

But how is it with the human produce, which is of such infinitely greater importance? No attention is paid to conditions at all, it is a mere matter of accident, the responsibility being conveniently laid upon the shoulders of Providence, which has exactly the same to do with it, and no more that it has with the breeding of any other animals; that is to say, certain laws are provided for the regulation of such matters, and as far as they are complied with, the result is certain. If it were not so, if we were the subject of a capricious will, the world with its wheels within wheels, could not exist.

So universal is the action of these natural laws, that parents can no longer escape the responsibility of their own acts. If they bring children into the world, they are morally bound, and should be legally, to surround them with the conditions favorable to life and health. Personal care is what is needed on the part of the parent, and the example of true, pure loves, which round out into the fulfillment of our dream of perfect manhood, of noble womanhood.

THE PARIS EXPOSITION OF 1900--THE MEDICAL EXHIBIT.

If the century be permitted to round out itself in peace, doubtless shall take place, in the year of our Lord 1900, the grandest show of the arts useful and beautiful that has ever both amazed and gladdened mortal eyes. No useful art surely can claim precedence to that of medicine, and we shall here propose a plan that in our judgment will best conserve its interests at that exposition. The writer believes that no collection of things appertaining to the art of medicine was ever more complete than the collection exhibited at the World's Columbian Exposition in Chicago, 1893. And yet it is probable that not one individual saw that collection its entirety. As an object lesson to show the medical practitioner the achievements of his noble art, or to impress the general public with an idea of medical progress commensurate with its dignity, it was a complete failure. The cause of this failure is clear. Its lesson ought not to be lost on future exhibitions. There was no method in the placing of the medical exhibit at Chicago, except a method in the madness that scattered the exhibits among five different buildings, and further subdivided the scattering in those buildings.

Our plan to make the medical exhibit at Paris a success is a simple one. Put everything illustrating medical and surgical art under one roof, in the same section of a building, or better into a building erected for the purpose, and known as the Building of Medicine. Then shall it profit a physician to visit the exposition for even a short time, as he can readily find medicine up to date. The layman examining this material testimony of medical progress cannot fail to depart without a higher appreciation of the profession that gave such an object lesson of its industry and skill.

We do not know what measures our medical brethren in France are taking in relation to the Exposition of 1900, but we earnestly invite them to consider the failure of the medical exhibit at Chicago, 1893, that a similar one may be avoided in Paris, 1900.

STATE BOARD MEDICAL EXAMINER.

We have knowledge to the effect that the name of Dr. T. E. Anderson, of Statesville, N. C., will be presented to the next meeting of the State Medical Society as a candidate to fill one of the three vacances which occurs next May on our State Board. We know Dr. Anderson to be one of the most progressive and cultured of the physicians of our State and we are satisfied that he will, if elected to fill this important position, discharge its duties with dignity and credit to the profession. He is a gentleman of peculiar fitness and talents, and we know of no one more capable of exemplifying the obligations of a State Medical Examiner than he. We write this in the general interest of the entire profession of our State. Dr. Anderson is without the knowledge that we intend to thus express ourselves about him.

BOOK REVIEWS.

A Text-Book of the Principles of Physics, By Alfred Daniell, M. A., LL. B. P. Sc., F. R. S. E, Third Edition, New York and London: Macmillan and Co. 1895. Price $4.00.

The importance of a course of pure physics to the medical student is now recognised. It should, however, be the basis of his studies, and not serve merely as a subject which is to test his power of passing examinations. It will help him to a clear understanding of the vital processes, since they are dependent upon physical phenomena, and thus enable him, when he continues his studies in the alleviation of the ills and pains of the human race, to found his diagnoses and treatment on a really rational basis. How else, without a clear conception of the properties, of the states, and of the constitution of matter, of molecular forces and action, of sound, heat, optics, and electricity, can he be expected to understand the physiology of the human organism, embracing such vital subjects as blood-pressure, the diffusion of gases and liquids through membranes, osmosis, respiration, the visual and aural faculties, the nervous system, the acquirement and expenditures of force within the body, and so on? And what an anomaly it was when only a few years ago a student of medicine could proceed to the degree of M. D. in some of our universities with practically no training in this subject, the principles of which underlie each and all of the phenomena just enumerated. Professor Daniell has had a considerable share in repairing the breach, and the first edition of his well-known work on Physics, published in 1884, came as a proof of his conviction that this branch of knowledge was neglected to a regrettable extent and very much to the detriment of medical progress. As he tells us in the preface, the book was designed primarily as a contribution to medical education; it is now recognised as fulfilling a wider sphere of usefulness, and is justly reckoned amongst the leading text-books, on physical science. By an intelligent perusal of the work the medical student is put in possession of the various physical principles the clear comprehension of which will throw light upon, and rescue from chaos, the multitudinous facts which are involved in the great physiological processes. Further, it will serve as an introduction and companion to practical work. Thorough knowledge, as the author puts it, must be drunk in by the eyes and the ears and absorbed by the finger-tips, and the true use of a book of this kind is not to replace practical work, but to economise the labours of the student. The scope of the work precludes any lengthened treatment of matter in detail in the space at our disposal, and we must be content to indicate its plan. The preliminary knowledge of physical principles is not assumed, and the reader is helped by the fact that prominence is given to the type in those paragraphs which serve to link together general principles, and, an insight into them having been gained, he can then proceed to the paragraphs in smaller type which give an application—and

are, in fact, an amplification—of these primciples. After a generalisation in the introductory chapter, of the sciences which are comprehended under the title "physical science," the author proceeds in the succeeding chapter to discuss time, space, and mass, and in Chapter II. passes to the notions derived from the preceding. Measurements (length, surface, volume; time, mass, and force), work and energy, kinematics, attraction and potential, gravitation and the pendulum, matter, solids, liquids, and gases, follow in due order, till in Chapter XIII. the nature of heat is discussed, then sound, and in natural sequence comes a section on ether waves, Chapter XVI., on electricity and magnitism. The work has good adpendex and fine index.

A Treatise on Nervous and Mental Diseases. By Landon Carter Gray, A. M., M. D. Second edition, revised and enlarged, with 172 illustrations and three colored plates. Octavo, pp. 733. Philadelphia: Lee Brothers & Co. 1895.

The favorable reception of the previous edition of this work has induced the editor to revise the treatise and to bring it up to date, and thus render it more useful to the prefossion.

There is no work published on nervous and mental diseases superior to the one now before us. In this second edition the entire work has been carefully revised and the following five chapters have been added—those on Dementia, Dementia Paranoides, Confirmed Insanity, Delirium, and Massage.

Owing to the fact that such a revolution of our knowledge of cerebral and spinal architecture has taken place within the past few years, the author has seen fit to entirely rewrite the chapter devoted to Anatomical Introduction, which makes plain all the facts of structure necessary to a comprehension of nervous disease. The chapter on Electricity is the second one considered, and is entirely practical even in details of selection and use of batteries. The chapter on Paralytic Dementia, the pathological portion, has been rewritten to conform with the new views that are based partly upon the discoveries of Golgi and Cajol in cerebral histology, and partly upon our wider knowledge of textural stains.

The author states in the preface that he deems himself sufficiently familiar with the uses and abuses of massage to devote a short chapter to the subject. The author has failed to treat of Hydrotherapy in its application to nervous and mental diseases because he thinks that it is not practicable outside of a few large cities, or that it has more value than mere cleanliness. In this work mental diseases are considered from the standpoint of the general practitioner, since the outcome will often depend on his skill in early recognition and treatment. He also states what patients should be treated at home and those that should be sent to asylums.

As to the subject of Therapeutics each chapter has been made to contain its own section on treatment. No where in medical literature is

the treatment of diseases more carefully considered than in this work. Not only are the medicinal and non-medicinal agents presented, but also those hygienic and dietetic measures which are often the physician's best reliance. The volume is extremely well illustrated. The mechanical execution of the work is most excellent.

Medical Diagnosis, with Special Reference to Practical Medicine. A Guide to the Knowledge and Discrimination of Diseases. By J. M. Da Costa, M. D., LL.D. Eighth Edition Revised. Philadelphia: J. B. Lippincott Co.

Da Costa's Medical Diagnosis is so familiar to the medical profession that to merely announce its appearance is sufficient for a review. This work has reached its eighth edition, which is one of the greatest praises that can be given any book. It has been translated into other languages, thus showing that its value and excellencies are appreciated and sought by other people.

The author states in his preface to the first edition that his chief aim in writing this work was to furnish avanced students and young graduates of medicine with a guide that might be of service to them in their endeavors to discriminate disease, and to offer to those members of the profession who are about to enter on its practical duties a book on Diagnosis of an essentially practical character—one neither so meagre in detail as to be next to useless when they encounter the manifold and varying features of disease, nor so over-laden with unnecessary details as to be unwieldly and lacking in precise and readily-applicable knowledge.

Not only did the author accomplish his purpose with his first edition, but to-day Da Costa's Diagnosis, from its genuine merit, still maintains its enviable position during a period of fresh additions to the methods of diagnosis and new facts in our knowledge of disease. No doubt much of the estimation in which Dr. Da Costa's work is held has been owing to the highly instructive method in which he deals with the subject. He does not—as many such text-books do—merely deal with the signs and symptoms of diseases in groups, but takes each system of disease in turn, and dwells upon the points of differential diagnosis between affections that have one or more features in common. The utility of this method must be apparent to all, and it is this which makes the book one of extreme value to those who are engaged in actual practice. Take, for example, the chapter on Diseases of the Intestines and Peritoneum. Opening with practical instructions upon the character and import of alvine discharges, it next deals with Diseases attended with Paroxysms of Pain referred chiefly to the Middle or Lower part of the Abdomen, and not associated with marked Tenderness or with Fever; here we find the different forms of "colic" described, and then the differential characters of no less than ten other conditions characterized by this one symptom. In the next place are described Diseases attended with Pain and Marked Tenderness in the Umbilical Region or diffused over the Abdomen, as acute enteritis,

acute peritonitis, and the affections liable to be confounded with the latter. The next section deals with Diseases attended with Pain and Tenderness in the Right Iliac Fossa, typified by appendicitis, and here again numerous conditions that simulate it are detailed. The remaining sections of this chapter treat of Disorders attended with Constipation, and of which it is a Prominent Symptom, Disorders in which Morbid Discharges from the Bowels occur, and Diseases attended with Vomiting and Purging. We have selected this chapter at random, merely to indicate the plan upon which the book is drawn up. A similar plan obtains in each department of the subject, and it is superfluous to add that the actual matter is thoroughly sound and enlightened.

We would not fail to mention the most admirable manner in which the publishers have done their work.

A Text-Book upon the Pathogenic Bacteria for Students of Medicine and Physicians. By Joseph McFarland, M. D., Demonstrator of Pathological Histology and Lecturer on Bacteriology in the Medical Department of the University of Pennsylvania. Philadelphia: W. B. Saunders, 925 Walnut Street. Price, $2.50 net.

This is a handsome volume of something over 350 pages, which the author tells us in his preface is designed to convey to the reader a concise account of the technical procedures necessary in the study of bacteriology, a brief description of the life history of the important pathogenic bacteria, and sufficient description of the pathological lesions accompanying the micro-organismal invasions to give an idea of the origin of symptoms and the cause of death. This work describes only such bacteria as can be proven pathogenic by the lesions or toxins which they engender, and, while considering them, mention as fully as is necessary the species with which they may be confounded.

In the introductory are found many interesting facts and data particularly in reference to all the modern discoveries with their respective dates. The chapters on Bacteria and the Biology of Bacteria are most excellent. Bacteria—what a wonderful revolution has taken place since their discovery. The distribution of bacteria is well nigh universal. They and their spores float in the atmosphere we breathe, swim in the water we drink, grow upon the food we eat, and luxuriate in the soil beneath our feet. Nor is this all, for, entering the palpebral fissures, they develop upon the conjunctiva; entering the nares, they establish themselves in the nose; the mouth is always replete with them; and, as many of them are swallowed, the digestive apparatus always contains them.

The chapters showing the bacillus of Tuberculosis, Syphilis, Glanders, Diphtheria, Tetanus, Rabies, Anthrax, Typhoid Fever, Cholera, Pneumonia, the Bubonic Plague, Tetrageuus, etc., etc., are very interesting and instructive. The work is of a very high order and will receive a warm

reception not only by general practitioners, but will find its proper sphere of usefulness in the hands of medical students.

It will also be found to contain much that will be of interest and profit to those practitioners of medicine who graduated before modern science had thrown its light upon the etiology of disease. The volume is handsomely executed typographically, and is well worth the price.

A Treatise on the Diseases of Infancy and Childhood, By J. Lewis Smith, M. D., Clinical Professor of Diseases of Children in the Bellevue Hospital Medical College, New York. New (8th) edition, thoroughly revised and rewritten and much enlarged. Handsome octavo of 983 pages, with 273 illustrations and 4 full page plates. Cloth, $4.50, leather, $5.50. Lea Brothers & Co., Publishers, New York and Philadelphia, 1896.

Smith's work on diseases of Children has been the leading text-book for a generation of medical students, and scarcely will you find any physicians library without a copy of this valuable book. No department of medicine should receive more careful attention than this. The department it covers is one of the larger specialties, deriving its importance from the universality of the cases, from the special affections to which children are liable, and for the clinical differences which must be observed in the diagnosis and treatment of human maladies in general when they affect the young. This the eight edition clearly shows the high compliment shown Prof. Smith, the great demand for his work and the high appreciation shown by the profession in their warm reception. Good things always last. The medical portion of the work has been thoroughly revised and contains five-fold increase in the number of illustrations and the addition of 100 pages and several full-page plates. To those who have its predecessors these marked revisions and additions makes the work even more desirable to obtain. A new feature in this work is the department on the Surgical Diseases of children by Dr. Steven Smith who is equally as eminent as a surgeon as Dr. Smith is in his specialty. This makes the work still more complete and useful. No work published can we commend as a safe guide to students and practitioners more heartily than the one before us. The mechanical part of the work is skillfully done.

Syphilis in the Middle Ages and in Modern Times. By Dr. F. Buret, Paris, France. Translated from the French, with notes, by A. H. Ohmann-Dumesnil, M. D., Professor of Dermatology and Syphilology in the Marion Sims College of Medicine; Consulting Dermatologist to the St. Louis City Hospital, to the St. Louis Female Hospital: Physician for Cutaneous Diseases to the Alexian Brothers' Hospital: Dermatologist to Pius Hospital, to the Rebekah Hospital, to the St. Louis Polyclinic and Emergency Hospital, etc., etc. Being Volume II and III of "Syphilis To-day and Among the Ancients." complete in three volumes. 12mo, 300 pages. Extra Cloth, $1.50 net. Philadelphia: The F. A. Davis Co., Publishers, 1914 and 1916 Cherry Street.

Volume I. of this work was well received by the profession several years ago, and now this, Volume II. and III., is in keeping with the first

volume. In the present work Dr. Buret considers syphilis from the middle ages up to the present time, and throughout the entire work is shown the profound scholarship of the author and its talented translator. The subject of syphilis is one of the most interesting in the history of medicine. There seems to be a prevailing idea that America infected Europe with syphilis. In this exhaustive review of this subject, the writer thoroughly vindicates America of the charge, although he does not deny its existence in America at the time of its discovery. The last chapter is devoted to the treatment and prophylaxis of syphilis. It is a neat and valuable work.

EUROPE IN AFRICA IN THE NINETEENTH CENTURY. By ELIZABETH WORMELEY LATIMER. Price, $2.50. (A. C. McClurg & Co., Chicago.)

The authoress of this work is by no means a tyro in the class of historical composition to which it belongs. The high success met by her preceeding works: "France in the Nineteenth Century," "England in the Nineteenth Century," "Russia and Turkey in the Nineteenth Century," etc., argues strongly for their literary merit and timely character, and for the favor with the reading public hails all well-written historical records of this marvelously progressive century in which we live. The present work is one of very live and timely interest. The "Dark Continent" has been so rapidly and widely thrown open to the light of modern investigation, and the cycle of discovery has been followed by such a marked example of the "game of grab" in which the nations of Europe are such experts, that one stands bewildered before the multitude of changes, while the political conditions of the continent shift with the rapidity of a kaleidoscope before his eyes. All readers who have attempted to follow the course of this shifting record cannot but be thankful to the authoress of this able work in enabling them to obtain a clear comprehension of the situation, and a point of vantage from which they can follow the future movements of the political game with more ease and comprehension. The story begins in Egypt, passes to the upper Nile regions and Abyssinia, and goes on to trace the movements of the English, French and Germans in Africa, yielding us, as the authoress remarks, a series of events none of which have reached their end, a volume of "short yarns," many of them very difficult to trace, and whose denouements must lie in the coming century. Students of history should be especially thankful for this roadside outlook over the stream of events.

TRANSACTIONS of the American Microscopical Society. Edited by the Secretary Eighteenth Annual Meeting, held at Cornell University, Ithaca, N. Y. Volume XVII. Buffalo, N. Y.: The Wenberne-Sumner Co., Printers. 1896. Price $2.50.

Scarcely do we find Transactions more complete. You might appropriately term them a most valuable book. They contain about 400 pages of most excellent material. The illustrations and cuts are fine.

A Singular Life, By Elizabeth Stuart Phelps. Houghton, Mifflin and Company, The Riverside Press, Cambridge. 4 Park Street, Boston: 11 East 17th Street, New York.

It is permitted to but few authors in any age or any branch of literature to acquire, at the very outset of their career, so sudden and deservedly wide-spread a reputation as did Elizabeth Stuart Phelps still less, without departure from one general vein of thought, to retain it unimpaired for so many years, finally reaching a success such as now attends her powerful and beautiful novel "A Singular Life."

Born and reared in a literary and religious atmosphere, a successful writer even from girlhood, her first grown-up book, "The Gates Ajar," published in 1868, took the reading and religious worlds by storm, with its wit and pathos, its imagination and realism, and its fresh and breezy, though not irreverent, touch in treating certain theological topics. Its success was immediate, abroad as well as at home, and the impress yet remains on all kindred thought and literature.

Many intermediate books have maintained and extended the popularity thus gained, until now, in the publication of "A Singular Life," her longest and best sustained book, she has given to the world the full fruition of all her powers in their maturity, a gift of which an accomplished critic says:

"If Elizabeth Stuart Phelps had never written anything else; if all of the mental effort of her lifetime had been crowded into this story, still she would have deserved and received the hearty recognition which, sooner or later, comes to those who put the best there is within them into their work."

That this is not a solitary dictum, but a representative judgment, the following notable consensus of opinion selected impartially from the most widespread and varied sources, and which might be extended to many pages, both proves and illustrates.

Color-Vision and Color-Blindness. A Practical Manual for Railroad Surgeons. By J. Ellis Jennings, M. D. (Uni. Penna.), Formerly Clinical Assistant Royal London Ophthalmic Hospital (Moorfields); Lecturer on Ophthalmoscopy and Chief of the Eye Clinic in the Beaumont Hospital Medical College: Ophthalmic and Aural Surgeon to the St. Louis Mullanphy and Methodist Deaconess Hospitals: Consulting Oculist to the Missouri, Kansas, and Texas Railway System: Fellow of the British Laryngological and Rhinological Association: Secretary of the St. Louis Medical Society. Illustrated with One Colored Full-Page Plate and Twenty-One Photo-Engravings. Crown Octavo, 110 pages. Cloth, $1.00 net. Philadelphia: The F. A. Davis Co., Publishers, 1914 and 1916 Cherry Street.

For a long time the theoretical problem of color blindness has engaged the attention of the scientific world, while the practical side lay dormant for many years, until it was proved that this curious defect was the cause of disastrous accidents by rail and sea. Public attention became aroused, new and simpler methods of investigations were invented, and, as a result of much agitation, many railroad and steamship companies

now require their employes to submit to an examination as to their color-sense. There are some good illustrations in this work, and will find a useful place.

RAMBLES IN JAPAN, The Land of the Rising Sun. By H. B. TRISTRAM, D. D. Octavo, pp. 306. New York: Fleming H. Revell Co. $2.

Another book of Japanese travel, by Canon Tristram, of Durham Cathedral, gives the impressions of a dignitary of the Church of England who had unusual facilities for observing certain phases of the Japanese civilization, particularly the influence of Christian missions. The illustrations—forty-five in number—were made by Mr. Edward Whymper, from sketches and photographs.

Literary Notes.

APPLETONS' POPULAR SCIENCE MONTHLY FOR MARCH, 1896.—Mr. David A. Wells continues his account of Taxation in Literature and History in Appletons' Popular Science Monthly for March, giving methods employed for raising revenue in ancient Greece and Rome. Under the title The Failure of Scientific Materialism this doctrine is sharply attacked by Prof. Wilhelm Ostwald, of Leipsic, who affirms that it should be replaced by a theory based on energy. Herbert Spencer contributes to this number a chapter on the Painter in his series on Professional Institutions. Prof. E. W. Hilgard shows that the salts in our alkali lands consist largely of plant food, and tells what means may be used to neutralize the harmful constituents. Exercise as a Remedy is discussed by Henry Ling Taylor, M. D., who shows how potent a curative agent exercise may be when carefully prescribed and how injurious it may be in some cases. Prof. William R. Newbold writes on Normal and Heightened Suggestibility, giving some of his experience with hypnotic patients. James Rodway describes in a bright, chatty manner The Coming of the Rains in Guiana. A scientific examination of the problems of Acclimatization and their bearing on the future of topical regions is contributed by Prof. William Z. Ripley. Among illustrated articles are an account of an archæologic find by Prof. C. F. Holder under the title The Ancient Islanders of California, and The Story of a Monkey, by M. Dybowski. Prof. W. K. Brooks concludes his Study of Inheritance in this number; Prof. M. V. O'Shea contributes a thoughtful paper on Educational Values in the Elementary School, dealing with the question What studies are of most worth? and Gifford Le Clear corrects a misconception as to certain measurements of The Velocity of Electricity. A Sketch and Portrait are given this month of the Ohio scientist William Starling Sullivant, who was acknowledged as the greatest American authority on mosses. The Nature of Liberty and The New Natural History are discussed in the

Editor's Table, and the other departments are well filled with scientific brevities.

New York: D. Appleton & Company. Fifty cents a number, $5 a year.

Littell's Living Age has a special charm of its own. "Made up of every creature's best its contents are

"Various, that the mind
Of desultory man, studious of change,
And pleased with novelty, may be indulged."

Questions of gravest present moment from the pens of the ablest known writers, recent discoveries in the realms of science, art and explorations; fiction, poetry, biographical sketches, and contributions from the field of general literature, fill its pages.

The February numbers well attest the versatility and value of this magazine. Taking, almost at random, an article or two from each weekly issue we find "Five Weeks with the Cuban Insurgents," by Hon. H. Howard; "The Venezuela and British Guiana Boundary," by Hugh Robert Mill; "The Advantage of Fiction," by M. G. Tuttiet; "The Sultan and his Priests," by Richard Davey; "The Rule of the Laywoman," by Mrs. Stephen Batson; "Some Seventeenth-Century Matrons and their Housekeeping," by Margaret M. Verney; "American Dislike of England," from the *Spectator;* "The Reign of the Queen," from the *Edinburgh Review;* "The Wild Wa——a Head-hunting Race," by J. George Scott, C. I. E.; "The Seizure of a Turkish Flagship," by Demetrios Bikelas; "The New Photographic Discovery," by Silvanus P. Thompson; "How to Read," by Arnold Haultain, and "Germany Under the Empire," by A. Eubule Evans.

But these only make a dozen or so of the forty-four papers, including fiction, which appear in this one month's issue.

Its recent reduction in price from $8.00 to $6.00 a year brings this magazine within the reach of a much larger circle of readers. It is published, weekly, by Littell & Co., Boston.

With the March issue, the Atlantic Monthly begins two important series of papers. The Irish in American Life, by H. C. Merwin, is the first of the promised articles on Race characteristics in American Life. Readers of the Atlantic will recall Mr. Merwin's papers on Tammany Hall, which created so much interest at the time of their publication. Under the general heading The Case of the Public School, the Atlantic will discuss the payment and standing of teachers throughout the country. Over ten thousand teachers have been requested to contribute information as the basis of these papers. The first appearing in this issue is by G. Stanley Hall, President of Clark University, Worcester, Mass.

The Presidency and Secretary Morton is the second pape in the

series of political studies, the first of which, upon The Presidency and Mr. Reed, appeared in the February issue.

A Seminary of Sedition is another of John Fiske's historical studies in Old Virginia. These articles are proving one of Mr. Fiske's most important contributions to the history of our country.

J. M. Ludlow, in an article entitled Two New Social Departures, gives an interesting account of two meetings recently held in London to discuss the relation of employer and employed, and the question of international co-operation.

There are further Memories of Hawthorne, by his daughter; Edith Brower discusses E. A. MacDowell in New Figures in Literature and Art; there is a third of Mrs. Catherwood's Studies in Provincial France; and Eugenia Skelding picturesquely describes a visit to the Holy Island of Lindisfarne.

Fiction is represented by a second installment of Miss Jewett's Country of the Pointed Firs; A Public Confession, a short story of garrison life, by Ellen Mackubin; and the conclusion of Pirate Gold, by F. J. Stimson, which shows the gifted author of Guerndale at his best. Poems, book reviews, and the usual departments complete the issue.

Houghton, Mifflin & Co., Boston.

The American Girl's Scorn of Marriage.—Th. Bentzon (Madame Blanc), in the March Forum. Shall I dare to express my whole idea? The severe education that the American girl receives agrees especially with those who afterward choose celibacy. The single woman in the United States is infinitely superior to her European sister; free from the fetters that often make the French old-maid so pitiable and ridiculous, she does not, like the latter, expect to gain liberty by marriage,—on the contrary, by marriage she would lose that perfect independence which allows her to cultivate herself more and more, to rise into a larger sphere than that of the family and even of the ordinary social circle by consecrat ing herself to works of universal interest. Her intercourse with men, freed from the childishness of flirtation, bears a stamp of quietness and freedom which allows real and serious intimacies that no criticism could assail. One sees no bitterness, no regrets. Her lot is too beautiful, her life too full, in spite of the natural satisfactions renounced—nay, perhaps just on account of that renunciation. Let there be, however, no misunderstanding. If it seems indispensable to me that the woman who, for some good reason or other, does not marry, should find some sphere for her activity, I severely blame the systematic scorn of marriage which comes to many young Americans who are ambitious *to be somebody, to do something*, to distinguish themselves in a career, and to escape from the common ways. With these pretended vocations there is often mixed a

childish vanity, a morbid idea of creating a sensation, of singling one's self out, and obstacles are most useful in proving their real value.

Lippincott's Magazine for March, 1896.—The complete novel in the March issue of Lippincott's is "A Whim and a Chance," by William T. Nichols, already favorably known to the readers of this magazine. It turns on a circumstance peculiar, but not without precedent in real life, the effort to find clues to property which has mysteriously disappeared with the owner's death.

Clare E. Robie sketches sharply and not admiringly the portrait of "A Labor Leader." Other short stories; both agreeably light, are "Mis' Pettigrew's Silver Tea Set," by Judith Spencer, and "Henry," by Mary Stewart Cutting.

Oliver McKee considers a topic now attracting general interest, the relative merits and disadvantages of "The Horse or the Motor."

The architectural series is continued by Louis H. Sullivan, whose theme is "The Tall Office Building Artistically Considered."

Emily Baily Stone presents a picture of "Household Life in Another Century"—not the twentieth, but the fifteenth. Edward Fuller writes seriously and somewhat anxiously about "The Decadent Novel," and hardly dares to hope for another Jane Austen.

Three ladies supply a sort of domestic trilogy. Jean Wright offers "A Little Essay on Love," which she handles in no sentimental vein; Agnes Carr Sage traces "The Evolution of the Wedding-Cake;" and Frances Courtenay Baylor has something to say "About Widows," with a view to their better provision in advance.

The poetry of the number is by Carrie Blake Morgan, Clinton Scollard, and Richard Burton.

During these months of extraordinary unrest in foreign politics, the Review of Reviews devotes its attention in large measure to international affairs. Its editorial department discusses matters in South Africa, the attitude of the great European powers, and the most recent phases of the movement among the nations for the arbitration of dispute; the March number also contains a most timely article on "The Government of France and Its Recent Changes," by Baron Pierre de Coubertin; "A Review of Canadian Affairs," by J. W. Russell, and a character sketch of "Cecil Rhodes, of Africa," by W. T. Stead. It can hardly be said that the Review of Reviews is narrowly provincial in its outlook on men and events!

It is stated in the Hospital that the Medical Society of Berne is endeavoring to prevent the publication of notices of cases of suicide. It has been observed that suicides have frequently been suggested by these means.

The Surgical Treatment of Retro-Deviations of the Uterus.

Dr. Augustin H. Goelet, of New York, in a paper read before the N. Y. State Medical Society, (Albany, Jan. 28, '96), declares that displacements of the uterus are not accorded the consideration they deserve, and that the routine plan of inserting a pessary and dismissing the case from further attention is an error too often committed. He thinks the majority of cases, especially those of long standing where structural changes have taken place in the walls of the organ, require surgical intervention for their cure. The pessary alone is never sufficient, except, perhaps, in very recent cases. The concomitant metritis and endometritis must be overcome before a radical cure can be effected.

After discussing the merits of Alexander's operation and the intraperitoneal methods of shortening the round ligaments and vaginal fixation, he deseribed an operation for retro-flexion which he had employed with success for the past twelve years.

The Alexander's operation which is only applicable in movable retro-deviations, he thinks unnecessary. Its chief disadvantages is the time it requires and the prolonged convalescence it entails.

Intraperitoneal shortening of the round ligaments requires more time for its execution and the convalescence is longer than suspensio-uteri, and the results have not been so good.

Vaginal fixation is objectiable because it substitutes a fixed anteflexion for a movable posterior displacement. The recent unfavorable reports of complications during labor following it offer another very serious objection to this operation. The best evidence of its inefficiency is that its originator, Mackinrodt, has abandoned it.

Where the uterus is fixed by firm adhesions, the author advocates opening the abdomen by means of a small incision, breaking them up and suspending the uterus by its posterior face from the anterior abdominal wall. This does not fix the organ as when ventro-fixation is done. In time the uterus recedes from the abdominal wall, close to which it is at first suspended, and swings in an easy position of nearly normal anteflexion. This he prefers to ventro-fixation because the uterus occupies a nearly normal position and is fairly movable. Its execution consumes less time than intraperitoneal shortening of the round ligaments. The results have been very gratifying.

When the adhesions are not very firm or extensive, they are broken up by manipulations under anaesthesia without opening the peritoneal cavity, and the case is then treated in the same manner as when the organ is movable.

The method of procedure which he advocates in place of A exander's operation in movable retro-deviations, has this to recommend it, viz:—that it aims at a cure of the co existing metritis and endometritis, the

maintaining cause of the displacement, and requires but a week's confinement in bed.

For retroversion he dilates the canal, curettes and packs the cavity with iodoform gauze. The vagina is then tamponned with the same gauze in such manner as to throw the uterus into a position of ante-version This dressing is removed every day, the cavity washed out with a one per cent. solution of lysol, and it is re-applied. This is done for a week, during which time the patient is confined to bed. Then a vaginal pessary is fixed to hold the uterus in a correct position. The cavity is irrigated twice a week until a healthy endometrium is produced.

For retro-flexion the same procedure is adopted, but instead of packing the uterus with gauze, a straight glass drainage stem is used which serves the purpose of a splint and keeps the uterus straight. It is then maintained in a position of anteversion by means of vaginal tampons of iodoform gauze. The gauze tampon and stem are removed every day, the cavity is irrigated to remove retained clots and debris, and after cleansing the stem it is re-inserted. At the end of a week the stem is removed, a vaginal pessary inserted, and the patient is permitted to get up.

The success which he has obtained with this method leads him to believe that the other more complicated and hazardous operations designed for movable retre-deviations, are unnecessary.

The American Microscopical Society.

BUFFALO, N. Y., January 31, 1896.

To the Members of the American Microscopical Society:

The next meeting of the Society will be held at Pittsburg, Pa., August 18, 19, 20, 1896. Our Society will be the first National Society to meet in the beautiful new Carnegie Library Building and will therefore have an additional honor bestowed upon it. The Iron City Microscopical Club is putting forth every energy to make the '96 meeting the banner meeting of the Society, and to succeed, needs the support and encouragement of every member.

We ask *you*, therefore, to do your share: *Come* to the meeting prepared to *read*, *discuss* or *listen*. The enclosed blanks are for use; you have at least one friend interested in Microscopy, who can be persuaded upon to join. Fill in the blanks and send them to the Secretary as soon as possible.

A preliminary program will be published on July 15, 1896, and if you have anything interesting or new, communicate it to the Society, and let others have the benefit of your work, thus showing the true scientific spirit.

WM. C. KRAUSS, M. D., *Secretary.*

382 Virginia Street.

Nitro-Glycerine in the Treatment of Sciatica.

Dr. William C. Krauss, of Buffalo, N. Y., read a paper on this subject before the Medical Society of the State of New York, recently held at Albany. Although skeptical in regard to new measures and remedies in the face of the abundance of means recommended, such as Electricity, Heat, Cold, Acu-puncture, Nerve Stretching, Hypodermic Injections, Splints, Extension, Rest, Cauterization, not to speak of the innumerable medicinal agents, he, however, tried Nitro-Glycerine and reported seven cases, all of which were speedily cured or greatly benefitted.

The administration of Nitro-Glycerine should be as quickly as possible after the onset of the pain, whether it be neuritic or neuralgiic in character, beginning with one minim of the one per cent. alcoholic solution, and increasing until the peculiar physical effects of the drug are obtained.

Seven cases were reported and all are here briefly summarized:

Case I. Male, age 50-60, has been a frequent sufferer of rheumatism and sciatica for years. On Thanksgiving day, 1895, he was taken with an acute attack of sciatica. Various measures were tried without any effect and the case was turned over to the writer. Nitro-Glycerine in one m. doses, three times daily, was prescribed, and in three days the severe pain had disappeared, and after ten days the patient was freed from all sciatic pain.

Cases II and III were that of husband and wife, both suffering with acute sciatica. The husband, however, had been a rheumatic for some years and had also gout. In two weeks' time, under the Nitro-Glycerine treatment, both were relieved of the sciatica.

Case IV was that of a stenographer, used to sitting ten hours daily on a hard bottom chair. Began to complain of symptoms denoting a neuritic affection of both sciatic nerves. Nitro-Glycerine and rest thoroughly dispelled these symptoms, and in a short time she was again able to resume her customary work.

Cases V, VI and VII were hospital cases, and received marked benefit from this form of treatment.

The disagreeable effects of the Nitro-Glycerine, as congestive headaches, flushings, etc., may be relieved by the Bromides.

The author does not claim that it will cure every case of sciatica, but if it relieves fifty per cent. it will be doing what no other single drug has heretofore done.

In prescribing the products of Manufacturing Pharmacists, we should be guided to a great extent by the business standing of the manufacturers. No other house in the South or West has a better reputation for strict integrity than the Robinson-Pettet Company, Louisville, Ky. We do not hesitate to recommend the preparations advertised by them on page 293, this issue.

A Case of General Tuberculosis with Tubercular Meningitis.

Dr. Henry E. Tuley, of Louisville, Ky., (Archives of Pediatrics, March,) reports an interesting case of general tuberculosis in a child of nine years. The case was of universal interest, on account of the accurate temperature range kept during the eight days she was under observation. Only thirteen times did the temperature reach normal, frequently it was 104°, twice 1051, and most of the time 103°, without any symptoms to account for the rise.

Both parents died of Phthisis Pulmonalis. Besides being a little thin, and having a peculiar listless expression and retiring disposition, nothing abnormal was noticed at first. When first admitted to the Infirmary she had had a chill, but quinine did not affect her temperature. She was anemic and had a vacant stare, never venturing a remark, One month later she showed enlargement of the submaxillary and sublingual glands to the size of a hazel nut, and enlargement to lesser extent of all other superficial glands. A diagnosis of general tuberculosis was made, and tonic treatment instituted. She grew rapidly weaker, and became more emaciated. Six months after admission to the Infirmary, the 71st day of her illness, she complained of severe headache, crying out with pain. Three days later she had a severe general convulsion, followed by many less severe during the night, and died at 3 a. m. on the 80th day.

At the autopsy tubercular nodules and patches of tubercles were found scattered over the surfaces and borders of both lungs, the apices were thickly studded with tubercular nodules. The bronchial glands were in a state of fibrous degeneration, not cheesy. The glands were much larger and more numerous at the bifurcation, and along the primary bronchi. Mesentery thickly studded with tubercles, mesenteric glands slightly enlarged, (not made out during life). Brain showed tubercular meningitis.

This case is instructive, as it shows that general tuberculosis must be looked for in the young ; marked external glandular enlargement means trouble deeper down ; the point where most involvement is located in children is in the neighborhood of the bronchi.

Neurosine.

The most Powerful Neurotic attainable, Anodyne and Hypnotic. A reliable and trustworthy remedy for the relief of Hysteria, Epilepsy, Neurasthenia, Mania, Chorea, Uterine Congestion, Migraine, Neuralgia, and all Convulsive and Reflex Neuroses. The remedy is par excellence in Restlessness of Fevers. Producing natural sleep. Composition, chemically pure Bromides of Potassium, Sodium and Ammonium, Zinc, Extract Belladonna, Cannabis Indica and Cascara Sagrada with Aromatic Elixirs. The medicinal effects of which the profession are well acquainted.

Senile Cataract.

Dr. E. C. Ellett (Trans. Tri-State Med. Society of Arkansas, Tennessee and Mississippi, 1895,) reviews the subject of Senile Cataract from an historical point of view, tracing the development of the pathology and treatment of this condition from the time of ancient Egypt to the present. After a brief account of what is now accepted in regard to the pathology and the modern ideas of treatment, the views of the Egyptians are given. They thought that cataract was a fiend driven into the eye and coagulated by heat. Incisions through the scalp and curetting or burning the bone were employed as a counter-irritation to prevent the formation of the cataract. When operative measures came into vogue, couching long stood in high favor, till Daviel, in 1750, adopted the method of extraction, now the only practical treatment for Senile Cataract.

In the operation now usually done, Dr. Ellett says "the incision is at, or just within, the corneo-scleral junction, and involves two-fifths of the corneal circumference, being made upward. It may be combined with a small iridectomy."

A comprehensive summary is given of opinions on the question of whether or not iridectomy should constitute a part of the operation. None of the champions of the operation without iridectomy adhere to it in all cases, and even where there is no apparent reason for its performance, the danger of prolapse of the iris, which no amount of operative skill can banish, remains as an objectionable feature in the so-called "simple" operation.

The supporters of the preliminary irridectomy are heard and the conclusion drawn that the performance of a preliminary iridectomy, followed by extraction of the lens in four to six weeks, stands as the safest method of operating for cataract.

The author agrees with Weeks and others as to the lack of necessity of waiting till the cataract is fully ripe before operating.

Sanmetto in Retention of Urine

Have given Sanmetto a good trial and find it one of the best preparations I have ever used. Case No. 1—John D., age 70, Ireland—has been troubled for a long time, unable to pass his urine. After treatment with other remedies with no benefit, place him on Sanmetto with following results: The first day the pus increased in quantity, on second day diminished, by fourth day could urinate himself, before this he had to be catheterized. Dose one drachm every four hours for the first three days afterwards one drachm three times a day. Discharged in ten days, a complete cure of cystitis.

A. C. Forman, M. D.
House Phys. Bayonne Hospt.

Bayonne, N. J.

Tuberculous Affections of the Heart.

Leyden (British Med. Journal) concludes a study of this subject. There are three forms of cardiac tuberculosis according as it affects the heart muscle, the endocardium, or clots present in the auricle and ventricle. After giving a historical sketch of each of these forms the author describes them. (1) Tubercle in the cardiac muscle is rarely found. The presence of the tubercle bacillus in such tuberculous foci has been demonstrated on several occasions. Apart from the actual deposit of tubercle, the heart muscle may undergo fatty degeneration in tuberculosis. Fragmentation of the muscle fibres as well as brown atrophy has also been observed by the author, but cardiac fibrosis is rare, and may even then own some other cause. (2) The valves are not infrequently diseased in phthisis, but usually valvular lesion has existed before the tuberculosis, Thus in the author's cases the valvular disease could not always be attributed to tubercle. Occasionally the endocarditis is recent. In one such case the streptococcus was alone found. In four other cases examined bacteriologically by Michaelis tubercule bacilli were found in the valves or endocardium. The bacilli were generally seen to be contained in cells. (3) In one of the author's cases Michaelis found the tubercle bacillus in the substance of an *ante-mortem* clot in the heart. Leyden draws special attention to the presence of living bacilli within the cells, and he thinks that such cells may be transported elsewhere and form new foci of tubercle. The presence of tubercle bacilli in the clots he would explain by the penetration of bacillus-containing leucocytes into them. He thinks that the fibrinous exudation in pneumonia may under certain conditions be invaded by cells containing the tubercle bacillus, and that thus a genuine pneumonia may pass into a caseating or tuberculous pneumonia. Details are appended of some of the cases observed by the author.

Hysteria and Ooporectomy.

Pamard (Edenburg Med. Journal) reports a somewhat instructive case as illustrating the uselessness of removing even diseased ovaries in order to cure hysteria. In the beginning of 1892 he was consulted by a single woman, aged 25, who had become a nun. She suffered from various acute hysterical symptoms for over a year. Before she took the veil her health had been robust. Both ovaries were now enlarged. In May, 1892, Pamard removed the ovaries. The right was as large as a hen's egg, and showed small cystic degeneration; the left was in a similar condition, though not as large. All went well for some time, but at the end of December the patient began to complain of dragging pains in the hypogastrium. In January, 1893, Pamard operated again, believing that

ng might act as a cure by suggestion. He resected the omentum, which was strongly adherent to the abdominal cicatrix. As before there was complete relief for several months, then severe nervous symptoms appeared once more. She was sent home for a few months, and the symptoms disappeared. Her health remained good for a time after her return to the cloister, but soon severe neuroses set in, and she remains unrelieved by treatment.

Functional Albuminuria.

At the recent meeting of the Medical Society of the State of New York, Dr. Eli H. Long gave a second report on an interesting case of "functional albuminuria."

Six years ago the case in detail was reported (Transactions of the Medical Society of the State of New York, 1890,) with a chart showing the results of hourly examinations of the urine during waking hours for sixteen different days. The first report was after three years' observation of the case, and the special features were the following:

1. Absence of albumin in urine excreted during sleep.
2. Maximum quantity of albumin in urine excreted during first hour after arising and *before* breakfast.
3. Lessening of albumin, as a rule, after each meal of the day.
4. Disappearance of albumin during pregnancy.

During the whole period of observation the subject has gone through three pregnancies, during each of which there was a complete disappearance of albumin. This fact was regarded as strong proof that orgauic changes in the kidneys did not exist.

The final analyses, given in the present report, twenty in number, and representing every voiding of urine for four days, show a complete disappearance of albumin. The case is thus shown to correspond with the usual history of "functional" cases, in that the tendency to void albumin disappears with advancing years. This subject is now thirty five years of age.

"Within the last month or two we have used the *Wine of American Ash*, from the well-known firm of Theodore Metcalf Co., quite extensively in menstrual irregularities. such as inflammation, leucorrhœa, etc., with very satisfactory results. The surgical craze in the treatment of diseases of the female pelvic organs has prevented, perhaps, many of our best physicians from studying as carefully as they should, the medical side of the question. Dr. Skene's recent work on 'Medical Gynecology' will, no doubt, do much to bring the pendulum back to a happy medium. Along with the Wine of Ash, especially in the poorly nourished patients, we have used with great benefit, *Burnett's Cod Liver Oil*, one of the best preparations on the market."—*The Denver Medical Times*, May, 1895.

Resolutions of Respect.

The following are the resolutions adopted by the Raleigh Academy of Medicine upon the death of Dr. J. B. Dunn:

WHEREAS, Death has again invaded the ranks of our membership and removed a Fellow, who, for more than forty years has lived among us a life of usefulness, both as a citizen and a professional man, Dr. James B. Dunn, who was born at Wake Forest seventy-four years ago and died Sunday morning December 22d, 1895, at 10 o'clock a. m., in Raleigh, therefore be it

Resolved, That in Dr. Dunn we recognized the virtues and characteristics that make up a good and useful life. He was generous, brave and kind, with a heart ever responsive to any call of his fellowman and a hand ever ready to aid distress wherever found.

As a citizen he was noted for his unswerving and enthusiastic patriotism. As a physician he was patient, tender and sympathetic, devoted alike to his profession and suffering humanity.

Resolved, That as a token of respect for our fellow who has fallen by the way, weary in the march of life, we wear the usual badge of mourning and attend the funeral in a body.

Resolved, That we hereby express for his sorely bereaved widow our heart-felt sympathy and condolence, and as a slight evidence thereof the Secretary be requested to present her with a copy of the foregoing.

Resolved, That these resolutions be spread upon the minutes of the Raleigh Academy of Medicine, and that the proceedings of this meeting be published in the Medical Journals of the State and the city papers.

Respectfully submitted,

JAMES MCKEE,
P. E. HINES,
W. H. BOBBITT,
} Committee.

Physical versus Mental Overtraining in Children.

Dr. Aristides Agramonte, in an article under the above title, (Annals of Hygiene) draws attention to the facts that although parents and guardians, in the majority of cases, are most careful in the physical training of children under their care, too often they fail to study their mental capabilities, and are apt to burden them with a greater amount of knowledge than they are in a position to assimilate. The laws by which the bodily development is regulated are directly analogous to those which govern the intellectual growth, and exactly as too early efforts at walking or exercise will distort the young bony structured, efforts at learning while the cerebral structures are immature, will cause great mental distortion, in some cases, possibly beyond the powers of reparation.

Some children are met with, though seldom, who at an early age are

capable of comprehending whatever may be taught them, but these little prodigies have never been known to make any thing more than very ordinary men, if so fortunate as to reach manhood. These cases are not the subject of this paper, the object of which is to plead for those promising "buds" at the time when they begin to seek knowledge from all that is presented to them, when their little minds are most plastic and subject more readily to external impressions. It is at this time, from the third to the tenth year, that the greatest harm can be done by the injudicious and over zealous teaching.

A system of education should be undertaken as will bring forth the child's own mental powers, and not one that will crowd his little brain with loads of superficial information: thus the faculties will be gradually exercised instead of *overwhelming them to death.* Self-educated men are living examples of the value of gradual, slow mental training over that of unsystematized, hurried over-stimulation; the necessity of which they found to exercise their *own* mental powers has been their point of advantage. At the same time the unusually clever but enfeebled child must be restrained from taking in knowledge in too great quantities. If these rules were more often followed, the author believes that we would less frequently see "clever children" wane into very common-place men. He considers it the duty of every family physician to study and advise what method of teaching should be followed in each particular case, whether one of gradual stimulation as in the case of ordinary children, or a restraining method where the bodily development is not up to the intellectual, or *vice versa.*

Gout--Its Cause.

This subject will always be a prominent theme for medical men to discuss. Its etiology is uncertuin; its pathology unsettled, and its treatment just as unsatisfactory. It is found among those who live in luxury and those who live in misery, surrounded by poor hygiene and bad air. Garrod (in Cleveland Medical Gazette) has maintained that gout is due to an increased formation and a decreased elimination of uric acid, and this excess circulating in the blood, gives rise to inflammation of, and death to, certain tissues, that the alkalinity of the serum is lessened, thereby favoring this deposit in parts where the circulation is sluggish. Ebstein agrees with this theory, but places less stress on the excess of uric acid. He was first to demonstrate the fact that the tissue upon which the urate of soda was deposited did not stain by the analine dyes, but remained as a light spot in the colored tissue, a characteristic sign of that form of death of tissue known as coagulation necrosis. The fact first pointed out by Garrod, that 30 per cent. of his patients suffering from plumbism also had the gout, is thought to be due to the fact that lead is not well eliminated in any one suffering from the uric acid diathesis. Later experiments dis-

pute this. It is not thought that any specific combination or reaction between the uric acid and the lead takes place. Garrod furthermore claims that in the digestion of the carbo-hydrates, an acid fermentation is set up in those of a gouty diathesis, which favors the production of uric acid by diminishing the normal alkalinity of the serum.

Very recently, Noorden has arrived at the conclusion that the gouty condition is independent of the presence of uric acid in the blood; the tissue necrosis he ascribes to the activity of a hypothetic ferment, (just what that is, he does not explain,) and he believes the uric acid deposited locally is formed at the necrosed focus.

A Clinical Study of Antikamnia.

The New York Medical Record contains an exhaustive article under the above caption by Samuel Wolfe, A. M., M. D., Physician to the Philadelphia Hospital; Neurologist to the Samaritan Hospital, Philadelphia. He summarizes as follows:

"I feel justified from my experience, to formulate the following conclusions:

"That antikamnia is valuable for reducing temperature in febrile complaints.

"That it is of service in many forms of pain connected with febrile diseases.

"That it has a field of use in rheumatic and gouty affections.

"That in neuralgic and myalgic pains, it is not only palliative, but along with other measures, assists in ultimate cures.

"That in neurasthenia, hysteria and migraine, it is a valuable adjuvant to the other recognized therapeutic measures.

"That in organic nervous diseases, it has a field of application.

"That it is the least depressing of all the drugs that can exercise so extensive a control of pain, and also least disturbing to the digestive and other organic functions." He further states:

"The scientific physician prefers always to treat a cause or condition rather than a mere symptom. If he can remove pain, by abolishing its cause, he will do so, rather than to blunt the sensory structures so that the pain is not felt. The demand for relief from mere symptoms, however, frequently becomes imperative, and this is especially the case when pain is present. We would cease to respect the physician, who in the presence of an acute agonizing pain, which mechanical or other means could not quickly relieve, who would withhold the hypodermic morphia. On the other hand, we applaud the sentiment which seeks for measures to combat this symptom; carrying with them less of the remote dangers, which are inherent in the frequently repeated and long continued use of opiates."

Alumnol as a Surgical Application.

Read before the Windsor, Ont., Physicians' and Surgeons' Association. By DR. E. B. SMITH, Detroit, Mich., Surgeon, Deaconess Hospital, Pres. Wayne Co. Medical Association.

All along down the line of generations past, step by step, we see the improvement in the giving of medicine to the sick and the dressing of their wounds, Man in his finer civilized state seems to require the talent of the world to be at hand when sickness or injury overtakes him, and so the surgeon feels a new stimulus when his co-operators place in his hands something that will be useful in aiding the parts that he repairs to again become normal.

He is constantly seeking newer remedies that will adapt themselves so that time and pain may both be cut to the shortest possible extent. Certain general inflammations are better treated with certain medicinal compounds, other inflammations respond to a certain remedy much more quickly than to any other, and so we find that certain remedies meet certain local lesions better than any other application;—these are axioms. To-day we are not bound down to any set rule or treatment, in wounds or injuries. Routine applications to all lesions and wounds are far from scientific. With these thoughts in mind, I wish to present to you the application of *Alumnol* in certain surgical cases where I have been led, by the chemical composition and nature of the drug, to believe that it is particularly adapted.

The cases reported are not the only ones that I have personally treated with this remedy, but are only a few that will show its application.

An ideal surgical application, according to our present status of tissue re-generation and bacteriology, must possess germicidal properties without at the same time interfering with or destroying local cellular activity, and it must also be free from the danger of producing injurious effects if constitutionally absorbed.

If a powder, it should be soluble so that it may be applied either in powder form or in solution, and it should be cheap, so that a sufficiency of it can always be used. It should also promote tissue growth. It should not stain, and it would be an advantage if it caused no pain when applied. A new drug has been offered to the surgical world in the shape of Alumnol, which, while it by no means fulfils all the conditions above mentioned, is, in my mind, a very valuable surgical application. Although it does not seem to possess marked bactericidal properties, it yet does promote tissue activity and thus aids in the normal healing of wounded or abraded surfaces.

The next question to be considered is: are our ideas of the ideal surgical application what they should be? Have we the right conceptions

with regard to bacteria and bactericide, and do we put a proper value on those preparations that act by stimulation?

When we put a solution of bichloride of mercury in a wound in order to prevent the growth of germs, what does it do? It kills perhaps those on the surface and thus often, no doubt, is beneficial, but how long do germs remain on the surface? Do they not, in an incredibly short space of time, penetrate to the interior of the cells on the surface, thence to the layer below and so on deeper down? How, I ask, is a solution of bichloride of mercury to reach those cells and kill the fructifying germs contained therein, much the spores, unless it kills the cells also, for how is it likely that a protoplasmic poison like bichloride will single out and destroy the germs and leave the containing tissue cells uninjured? An application that destroys the tissue cells as well as the bacteria often defeats its own object for the reason that all of the bacteria are not destroyed and the dead tissue cells form an excellent medium for their growth and reproduction.

But whatever may be the effects of Alumnol considered from a bacteriological standpoint it certainly possesses what is commonly termed healing properties. By that we understand something that causes the cells to take on a healthy activity and promotes tissue regeneration.

The use of Alumnol in the treatment of abscess cavities is one that is likely to come into general employment, since this drug is soluble in purulent secretions and therefore does not plug up the small vessel; it is not corrosive, even in 10 per cent. solutions; it penetrates more deeply than other compounds on account of the fact that the albumen precipitated by Alumnol is soluble in excess of albumen. The wound soon closes up, the cavity becomes smaller and the purulent secretion less under its use. I have had some happy experiences in this line. Indolent ulcers, especially of the leg, seem to be favorably influenced by 5 to 10 per cent. solutions. It is not irritant, does not form an impenetrable coagulum; does not exert toxic symptoms by absorption, and can be used in solutions of sufficient strength to exert a beneficial and curative effect, without at the same time setting up too much inflammatory action.

As might be supposed it is also beneficial in endometritis, particularly the form due to gonorrhœa. I have personally had good results with equal parts of Alumnol and boric acid, dry, as a local application in the different inflammations of uterus and vagina. Since Alumnol is a rather powerful reducing agent it cannot be used in conjunction with such antiseptics as are easily reduced, for instance silver nitrate or permanganate of potash; it may be used with boric or salicylic acid, zinc oxide or bismuth sub-nitrate. Chotzen recommends for vaginal catarrh the injection of a 1 to 2 per cent. aqueous solution.

A combination of Alumnol and zinc oxide makes a useful application in eczema as in the following dusting powder.

℞ Alumnol, 1 dram,
zinc oxide, 2 drams.
acid carbolic gtt. 2
M. ft. Pulv.
Sig: Local application.

Alumnol has the peculiar property of adhering very closely to the surface, thus protecting the skin from the air and external irritation; this is recognized as an important point in the treatment of eczema. The alumnol holds the zinc oxide down to the raw surface and the carbolic acid with which the two are incorporated tends to allay irritation and at the same time acts as an antiseptic.

In this way it also answers a good purpose in the treatment of superficial abrasions and the excoriations found in various skin diseases. Being soluble, it permits of more extended application than many other remedies, and may easily be combined either in powder, solution or ointment with such antiseptics as boric or salicylic acid. It may not be out of place to suggest here that the following formula will be found very useful in Cystitis. Alumnol 1 dram, boric acid 2 drams, water q. s. to make 4 ounces. M. Sig., Inject into the bladder, 1 ounce of this solution with 4 ounces of warm water; after a few minutes this may be washed out with ½ pint of sterilized water.

I desire to report the following cases in which I have employed Alumnol.

Case I.—Mr. B., a man weighing 365 lbs, had suffered from proctitis and multiple abscesses of the rectum with the resulting fistulæ that are left after unoperated cases. It has not been my experence to find as many rectal fistulæ in any one case as this man presented; there were seven distinct sinuses, extending from three to five inches and a half out in the flesh to well up into the rectal pouch. The patient also presented a typical case of fatty degeneration of the heart, which, with his extreme obesity, made it an undesirable case and one of worry and work without much prospect of good coming from it. The parts were kept clean and well injected with peroxide of hydrogen. Under slight cocaine anæsthesia the tracts were lightly curetted and some of the smaller openings seemed to heal to a slight extent; this curetting was repeated several times without positive results; now and then one of the fistulæ would close up only to again form and re-open; I tried iodoform mixtures but with negative results, I then, with the assistance of Dr. E. W. Tonkin, incorporated powdered Alumnol in the meshes of sterilized gauze, rolled this into a firm strand, and passed it by means of a probe and small forceps, within the fistulous tracts. Where possible, these strands were passed from one end of the fistula to the other. At the redressings where there was considerable callous material not granulating, the parts were first curetted and then again packed as described above. I subsequently had the pleasure of calling Dr, Tonkin's attention to the stimulating and healing

process which Alumnol brought about in this case, The patient at the present time has one blind fistular opening and another complete one, but gets along quite well, being continually on his feet from morning until night; before the treatment this was impossible.

Case II.—Mrs. W., family history decidedly tubercular, two sisters, as well as other members of the family, having died with pulmonary tuberculosis. Mrs. W. had not had the best of nourishment, nor the best of quarters for the last two or three years, and had the care of three children who had followed each other in quick succession; she presented herself at my office with an indurated, breaking down nodule upon the cheek near the angle of the mouth on the right side.

I treated her constitutionally and locally for lupus tuberculosis, with arsenic and cod liver oil internally, and different remedies externally. Exhibited the patient several times at the Detroit Dental School, at the surgical clinic held with Prof. G. S. Shattuch, M. D., where we operated upon the ulcer using cocaine for local anæsthesia, curetting the parts well and subsequently applying the nitrate of silver stick. This was repeated several times before the class and also at my office, but the breaking down and infiltration kept on, only abating after this thorough curetting and then but for a time. I then determined to use Alumnol as I had had such good success with it in indolent, varicose and other ulcers. After cleansing the face on that side and curetting slightly, without local anæsthesia, I took the powdered Alumnol and with a probe worked particles of the drug well into the ulcer. I then incorporated in sterilized gauze a goodly quantity of Alumnol, applied this over the ulcer and instructed the patient to keep it well in position. This procedure I repeated three times per week. Upon her next visit to the office after this dressing, I could easily notice a change for the better. The ulcer began to heal rapidly, and now at this writing, the parts show themselves to be materially influenced for the better. I cannot ascribe the result of this case to the fact that the patient was impregnated with arsenic, as she stopped the treatment for more than two weeks before I commenced the Alumnol treatment. Microscopical specimens were examined and tubercular bacilli were found at two different times, though not in large quantities.

Case III.—Mrs. N. had lacerated perineum which was partly repaired at her second confinement. I operated upon her several weeks ago at the Deaconess Hospital, Detroit, and found the laceration complete involving some of the fibres of the rectal muscles. The laceration was about five years old and presented considerable hardened tissue; this was dissected out, and a slightly modified Tait operation made, the parts being brought together with bured catgut and kangaroo tendon and well dressed with Alumnol. Healing by first intention resulted, excepting one little point like the end of a pen holder. This is but a repetition of several other "flap" operations in which I have employed Alumnol as a dressing; I use

it freely. My laparotomies at the above Hospital have had this dressing for the last year, all healing by first intention.

Case IV.—A case of Dr. J. F. Bennet's: Necrosis of the sacrum, coccyx and ilium, due to injury; the buttocks and sacro-iliac region being full of sinuses. In this case I laid the parts well open, exposed the sacrum, lifted the sacral nerves from place, and chiseled out quite a portion of the outer plate of one side of the sacrum. The necrotic tissue had dissected its way under the great muscles of this region, making large pockets in every direction; these were curetted, cleaned out and packed with a dressing of sterilized gauze impregnated with Alumnol. The parts certainly healed and progressed nicely, although the patient ultimately succumbed to pulmonary tuberculosis, from which she was suffering at the time of operation.

Case V.—Mrs. Y., 30 years of age, had suppurative bursitis of the knee joint, possibly due to gonorrhœal infection. I treated it after incision with injections of carbolic, boric and salicylic acids and peroxide of hydrogen with no success; one or two injections of a 10 per cent. solution of Alumnol completed a cure.

Case VI.—Mrs. G., 50 years of age, had a varicose ulcer near the ankle, which had existed for some months and been treated with a number of remedies, internal and external, without appreciable effect. Alumnol was then applied in powdered form, and was followed by considerable improvement, the ulcer being now scarcely half the size that it was under the former treatment.

In conclusion, while I do not pretend to say that Alumnol is an ideal surgical application, I have had the happy experience that it has promoted the healthy healing of tissues after dissipating the morbid processes that previously existed.

Sole manufacturers of Alumnol, Farbwerke Vorm. Meister, Lucius & Bruning, Hoechst-o-Main, Germany.

Sole Licensees for the United States, Schulze-Berge & Koechl, 79 Murray Street, New York.

Sexual Neuræsthenia.

In the course of an able paper, which appears in the November issue of the "Medical Sentinel," Dr. David H. Rand, of Portland, Oregon, late secretary of the Genito-Urinary Section of the American Medical Association, etc, says:

"In many of these sexual troubles, particularly where there is a nervous phase, the strictest attention must be given to the general condition of the patient. The bowels must be kept open and toned up, and good nutritious food administered. Some one of the artificial foods may be used with advantage, and I am especially well pleased with the new pro-

duct, Paskola. It has given me great satisfaction where used in many cases."

We earnestly recommend that physicians who have not tried this article take advantage of the manufacturers' liberal offer which appears elsewhere in our pages.

Bronchiectasis.

Duret (Annals of Surgery) relates a case in which recovery occurred after three operations. A girl had a severe attack of whooping-cough when 8 years old, after which she suffered from cough and expectoration. When 18 years old she became worse, there being fever, cough, and an abundant expectoration. Three years later the cough and expectoration, which was not fœtid, further increased, and dyspnœa was present. The physical signs showed that the lesion was in the lower lobe of the right lung. The largest trocar of Dieulafoy's apparatus was passed into the chest in the seventh interspace behind, and eventually thick pus with gangrenous *debris* was obtained. A flap of skin was then raised and portions of three ribs were resected. The thickened tissue now exposed was divided by the thermo-cautery until a cavity was laid open. Gangrenous material escaped. Multiple cavities were then opened up by the cautery, and it was thought that the openings of dilated bronchial tubes could be felt. After the detritus, etc., was cleared out a cavity remained of about the size of a turkey's egg. The patient expectorated about this time a most horribly offensive material. Two drainage tubes were put in. The patient now steadily improved, and in a month's time was sent into the country. She continued to do well for four months. Later the expectoration increased, amounting to from 30 to 50 c.cm. in the day, and the general condition became worse. A second operation was therefore undertaken about nine months and a half after the first one. Some more cavities were cleared out; scraped with a Volkmann's spoon, and packed with iodoform gauze. There was troublesome vomiting after this operation. A counter opening had to be made fourteen days later below the right breast, and a large drainage tube was passed through. The patient now began to improve again. The drainage tubes remained in for four years. Twelve months later a cutaneo-bronchial fistula remained, and an operation was performed for its closure with success. Two years and a half afterwards the patient was in excellent health. It was thought that the air penetrated into the right lower lobe, and that this part of the lung had again become permeable. Three or four times a day she had a moderate attack of coughing, with the expectoration of a clear and odourless fluid. The author thinks that this came from dilated bronchi in the neighborhood of the diseased focus. The expectoration was diminishing.

Non-Superative Ankolosis of Joints.

Dr. Anderson (Transactions of the Pathological Society of London Feb. 18th, '96,) in opening a discussion on the subject, observed that the pathology of non-suppurative ankylosis was still incomplete, and cases were often met with which our present theories of causation were insufficient to explain. Mr. Howard Marsh, in his address read before the British Medical Association in July last, had led the way towards a better knowledge by recording a number of examples of the rarer forms of the condition, and it was with the object of reawakening debate and educing further contributions from both physicians and surgeons that the present paper was read.

Ankylosis was defined as a complete or nearly complete suppression of the movements of a joint, due to changes involving either the opposed surfaces of an articulation or the ligamentous and capsular structures investing it. No separation was made between fibrous and bony ankylosis, because the same injury might induce either condition, and a fibrous union might in time become osseous. As a tentative classification of the non-suppurative form, it was proposed to divide the cases into two groups, according to origin: inflammatory and degenerative. (a) The inflammatory form might arise from: 1. Mechanical injury either of an accidental nature, such as simple contusion, fracture extending into a joint, etc., or intentional, as in resections and arthrectomies. Cases of ankylosis by contusion were quoted. 2. Toxic elements conveyed by the blood, as in septicæmia, (puerperal, typhoid, scarlatinous, etc.), gonorrhœa, rheumatism, gout, "quiet" tuberculosis, and, possibly, in syphilis. 3. Affections of the nervous system, surgical injury, as in case of division of nerve disease such as Charcot's, (?) rheumatoid arthritis, and peripheral neuritis. (b) The degenerative form was exemplified by cases of (1) ossification of ligaments in rheumatoid arthritis, and perhaps in other conditions; (2) forcible and long-continued pressure of one articular surface against another—as in porters who carry heavy weights upon the head—and in extreme cases of lateral curvature; and (3) adaptive changes in ligaments around a joint that has undergone long immobilisation. (c) A third section must be at present reserved for obscure cases which cannot be classified with certainty. The following case was then read:

The patient, a neurotic man of 30, had suffered since the age of 10 from a series of articular lesions terminating in fibrous or osseous ankylosis. Each attack set in without apparent cause and without constitutional disturbance, and was characterised by moderate pain and swelling of a single joint, followed after a few months by more or less complete fixation of the articulation. In this way the right wrist, the right knee, the right ankle and tarsus, the left elbow, the right elbow, and the right shoulder were successively invaded between the ages of 10 and 19 (inclu-

sive), the ankylosis being osseous in the right knee, the right tarsus, the right shoulder, and apparently in both wrists, fibrous in the other joints. Since the age of 19 the attacks have been less frequent and severe, but the first phalangeal joints of both ring fingers and the left little finger have suffered, and within the last fortnight the left shoulder has become tender and painful. No osteophytic formations were apparent in any of the affected joints. In addition to the joint manifestations the patient is the subject of extreme hallux valgus (apparently independent of boot compression), a partial loss of power with stunting of growth of the right middle finger, and a vasomotor paralysis of the skin of the right leg and foot. The patient is a very neurotic subject, but free from other disease and with a good family history. He has undergone a cuneiform resection of the right knee and a resection of the right metatarsal bone. Various cases were related and preparations shown in illustration of the different headings of classification.

COLUMBUS, OHIO, Nov. 12th, 1895.

ZUMO–PHARMACAL CO., St. Louis, Mo.:

Gents :—Some time since I received a sample of your Pine-Apple Digestive Wine. Having believed that Pineapple juice had a specific value in Diphtheria I dedicated the bottle to the first case which put it on its mettle.

I was called Nov. 11th, '95. Found a bad case of Diphtheria. It had been treated three days by a good doctor.

Girl six years old. Marked prostration. Membrane covering arches creeping up posterior nares, with nose bleed, and had so invaded the larynx as to threaten strangulation. Her doctor had talked of intubation. Almost incessant vomiting and complete anorexia.

I gave friends no encouragement and undertook the case reluctantly. Supplementary to my favorite treatment, I gave freely of your Wine. The general condition improved so quickly that the friends were sure in 24 hours she was getting well. Vomiting ceased and she began to call for food. The arches and nares cleared quickly. No more nose bleed or difficulty in swallowing. The laryngeal condition, which of course was my terror, remained stationary for several days. The child meantime sitting up in bed, playing with her doll and dominoes, and wanting to get out of bed, but croupy cough, paroxysms of dyspnœa and whispered talking warned of danger. Then the larynx gradually cleared, and one week from the time I first saw her, I ceased visiting her.

Have given facts tersely. I do not "jump at" conclusions, but intend to try it again. You will look a long time to find my recommendation of a proprietary medicine, but if part or all of this is of any service to you, you are welcome to it. A. B. CASTLE, M. D.

A New Radical Cure for Hydrocele.

Baumgarten (Clinical Journal) reviews and summarises all the hitherto described radical operations for hydrocele, and points out that theoretically a radical cure can only be effected by excision of the whole tunica vaginalis, a procedure which is impossible without damage to the testicle or epididymis. None of the ordinary operations is, at the same time, free from danger, productive of rapid healing, and protective against speedy recurrence. His own operation is by means of a long incision from below the inguinal ring to the lower border of the scrotum. The whole hydrocele is then separated, without cutting from the subcutaneous tissue, and brought out from the wound, the skin of the scrotum being tucked away behind it, and packed with sublimate gauze. A small incision is made in the hydrocele and most of its fluid let out; the hole is then enlarged, and the wall of the cavity swabbed with gauze soaked in 1 in 4,000 perchloride. The wall is then excised except the part in contact with the testicle and epididymia, which is vigorously scrubbed with more 1 in 4,000; the same procedure is directed towards the subcutaneous tissue. The wound is sewn up with seven or eight stitches; no drainage is made, but the lower few stitches are left further apart than the upper. Any vessels which bleed are twisted, but not ligatured. The wound is put up in a dry dressing supported by a firm bandage, arranged like a pair of bathing drawers; it is not touched for a week, when the stitches are removed. The whole surface of the testicle is at first adherent to the scrotal connective tissue; after a few months, however, the bands relax, and the cremaster becomes as effectual as before. The special advantages which Baumgarten claims for his operation are that no hydrocele fluid is allowed to escape into the cellular tissue of the scrotum, that the substitution of torsion for ligation of the vessels removes a source of irritation, that as much of the tunica vaginalis as possible is removed, and the remainder well scrubbed with sublimate, and that drainage is dispensed with. He also states that the wound healed more rapidly, and with less scarring than with other methods. He quotes an illustrative case, which had remained ten months after the operation without recurrence.

The New York School of Clinical Medicine has succeeded in introducing a modified form of the European manner of personal instruction, suited to the needs of busy American practitioners, who need brushing up in the specialties, but who can afford only a few weeks' time for the purpose. The method consists essentially in limiting the class to a very few students and having them act as assistants in attendance upon the vast clinical material at the school's disposal. As soon as qualified the matriculants examine, treat and operate on patients themselves, the teachers acting as assistants.

The school itself, as well as the hospital and dispensaries at which its teaching is done, are fitted with everything to meet the requirements of most modern science.

We most cordially recommend this plan of teaching to physicians going to New York for post-graduate instruction.

Intra-Articular Injections of Iodoform Emulsion for Tubercular Joints.*

By Alex. Hugh Ferguson, M. D., Chicago.

Gentlemen:—The first two cases for today's clinic are tuberculosis of the hip joint. The one of nine, and the other of two years standing. We shall inject both of them with an emulsion, ten per cent. of iodoform in glycerine. The first case we injected twice already, while the other is here for the first time. The following is a brief history of them.

Case 1.—*Present Condition.*—Miss L., aged 17, well nourished; walks without a limp; can run up and down stairs step after step without pain or inconvenience, is able to stoop and pick articles off the floor and not manifest while her clothing is on which hip is diseased; and as she is now walking into the operating room you cannot detect what her malady is. Allow me now to point out the condition to you of the exposed right hip and extremity as compared with the left side. The deformity, as you see, is quite marked. The whole limb is emaciated, but quite as long as its fellow. There is only slight thickening over the upper extremity of the femur. The four round scars in front of the upper third of the thigh, the one behind the middle, and three at the upper border of the popliteal space, at once tell a tale of chronicity and suffering for years, for at these localities tubercular abscesses have had spontaneous exit and discharged for months at a time. The limb goes straight down to the table without any arching of the back, demonstrating that the muscles are no longer on guard, that the joint is not filled with fluid, and that anchylosis is not present. Complete active or passive flexion of the thigh upon the abdomen is not possible. Adduction, abduction and circumduction are limited. There are no subjective symptoms and no tenderness on pressure. She has not felt so well for nine years. Why, then, is she here for treatment? Because we suspect from the previous extensive nature of the tubercular infection of this hip that some focus, some softening of the neck or trochanter may still be there, and if that be the case, we must find it and treat it. By a careful search with this trocar and canula we can tell when osteoporosis is encountered. Should no diseased spots be

*An abstract of a clinical lecture delivered at the Post-Graduate Medical School of Chicago on the 29th of February, 1896.

found, each track made by the instrument should be filled with the emulsion, other small undetectable foci inadvertently disturbed would afford an opportunity for the bacilli to multiply in the plasma thrown out to repair the trauma, and our very search might be the means of relapsing the case to its old condition.

Condition of this case on the 31st of August, 1895, when first injected. When brought to the Post-Graduate Hospital by Dr. Greeno and referred to me last August she presented, as she was being conveyed by her friends on a stretcher, a clinical picture of suffering and despair not uncommonly seen in the advanced stages of coxitis. She was hectic; temperature 103 F., pulse 120; consti pated; anorexia; night sweats; sleep disturbed with pain and spasms of the muscles, etc. The limb was flexed and adducted. No manipulations could be done on account of the pain they caused. A very large abscess was situated in the joint region, forming the greatest prominence over and below the trochanter major, where fluctuation could be distinctly felt. It was a case of mixed infection, pyogenic organisms having found their way to the tuberculosed joint. The abscess was evacuated, and washed out, but not curetted. A probe passed easily into the joint. The emulsion was injected from a point immediately above the trochanter major, free passive motion given to the joint in order to wash it out with the injecting material which found an exit along the sinus to the abscess opening in the skin. Fully an ounce was left in the joint and a large antiseptic dressing applied. From the point above mention, the trocar passed through the diseased neck, the trochanter major, and upper portion of the femur, as it would through cheese. A pathological destruction was present, for which I had five or six years ago frequently done an excision. The rapid improvement made was all that could be desired. However, she was kept in bed for three weeks, when a second injection of an ounce of the emulsion was made. The bone was still quite soft. In two weeks afterwards she was allowed to go home with instructions to use crutches. The sinus by this time had closed. Now I have asked her to return for a third treatment, which will only keep her here four or five days.

Previous History. Was delicate as a child. When 8 years of age had a fall, after which hip-joint disease began. The usual old treatment of rest in bed with weight and pulley was faithfully carried out for a couple of years, by which time abscesses formed and broke, to reform again and again. The most of the nine years was spent in bed, but no splints were ever used. No respite from pain of even one month during all these years has been experienced. Her family history is good.

Operation of Third Injection. This syringe is an all metal one which I had made for this purpose. It holds an ounce of the emulsion, and when ready to inject is fastened to the canula which has been guided to the diseased part by a trocar and the latter then withdrawn. The instru-

ment is plunged into the hip-joint at a point half an inch above the tip of the trochanter major. The neck of the femur is aimed at, which is the seat of origin of the disease in about 50 per cent. of cases. This route I prefer for the following reasons: (a) The diseased joint can be readily reached; (b) no important vessels or nerves in the way; (c) the long distance through muscular tissue prevents the fluid from escaping when the canula is extracted, and (d) should, through some accident, the cutaneous puncture suppurate there is not much danger of infection reaching the joint. Should a point be selected anterior to the joint, most of these arguments cannot be forwarded in its favor. A trocar and canula are better than a sharp needle on account of their strength and the employment of them as a probe is very valuable for detecting diseased bone. I now strike the neck of the bone. It is hard, the trocar will not penetrate it, so without withdrawing it, the anterior surface is explored and it too is hard and conveys to me the sensation of normal tissue. I now retract the instrument to the upper surface of the neck and slide it to its posterior surface, and here the bone is soft. The instrument goes into it with very little force. The trocar is now withdrawn, the syringe fastened to the canula and the emulsion slowly forced into the bone. With the canula and syringe attached a second soft spot is felt through which the canula passes, but in so doing it becomes occluded. I must unfasten the syringe and clear the canula with the trocar. This being accomplished, as much as possible of the emulsion is passed into the soft bony tissue. I shall now explore the head and acetabulum. They are smooth and hard. The remainder of the ounce is now left in the joint, and free passive motion employed in order that the iodoform may reach every part of the joint. An old rule in surgery was not to forcibly move a strumous (tubercular) joint on account of the dangers of disseminating the disease and causing acute (tubercular) meningitis. It was based on the sad experience of ill results in hundreds of cases during a great number of years. This rule, which had really become an axiom, we now violate every day with impunity, our safeguard being iodoform emulsion, possibly on account of the bacilli being incorporated in the emulsion and rendered non absorbable until nature throws out her protecting material. With the intraarticular injection of joints we aim at securing (a) good free motion, and (b) cure of the disease.

Iodoform has only feeble anti-germicidal properties, but it is the best producer of granulation tissue at our command, and this tissue is the best fighter nature has against germs. We cannot conscientiously discard it. The puncture is now sealed with collodion and the patient sent to bed. The first three or four days a reaction usually occurs, manifested by a rise of temperature 99 to 103 F., rapid pulse. some pain, etc., which subsides on the third or fourth day. An opiate may be necessary to prevent suffering, but nothing need be done for the pyrexia. She may then get

up and use the limb as she feels inclined. This young lady's hip should be tested again in six or eight weeks.

Case 2.—Hazel O., age 5 years, began to complain of her right hip and knee two years ago, and for six months was treated for rheumatism which was rather wide of the mark. Since then the weight and pulley have done some good service in preventing nocturnal pains and muscular spasms. This did not, however, prevent the onward progress of the disease. No splints have been worn. Her present condition is that of prostration and suffering, although well nourished. The constitutional symptoms are slight—no fever, no marked emaciation, no loss of appetite, no constipation, etc. Her sleep is frequently disturbed by spasms and pain. She will not attempt to stand or even try to put the slightest weight on this extremity. The gluteal fold is gone, the whole limb wasted, this thigh being ¾ inch smaller in circumference than the left. The deformity of the hip joint is very marked; the thickening is extensive; the adducted and flexed limb is surrounded by rigid muscles, and the pelvis is tilted downwards on this side. Any attempt made to straighten the limb arches the lumbar spine. Now that she is under chloroform the limb straightens, and is quite as long as the other, which means that the destruction has not occurred on the articular surface of the head of the femur nor acetabulum. I cannot feel or hear crepitus, as the joint is freely moved. Now the trocar and canula pass freely through the centre and anterior two thirds of the neck, as well as into the junction of the neck and shaft of the femur. The articular surfaces appear to be smooth and hard. Half an ounce of the emulsion is, as you observe, left in the diseased bone and joint. The joint is put through its normal motions, the puncture hermetically sealed with collodion, and the little one put to bed. It is wiser to keep her free from pain. The limb is allowed to take its easiest position. SHALL WE USE A SPLINT? Not in this case, because the deformity will subside when the pain ceases and the progress of the disease is stayed. It is surprising to notice how the deformity disappears with the subsidence of the physical signs without the use of any fixation apparatus. My rule is not to apply splints, which, however is occasionally violated when a Thomas splint or a plaster cast is put on to correct a stubborn deformity, or to protect the limb from accidental injury while going on crutches. Keep your patients out in the sunlight and fresh air between the times of injection. HOW OFTEN SHALL WE INJECT THE EMULSION? Once in every one to six weeks. The hip-joint should be injected about every three weeks, when the granulation tissue is becoming fibrous. Should a hip-joint be injected too often the fibrous tissue will form too abundantly and interfere with the motion of the joint, and if injected too seldom the bacilli will gain the mastership. Three weeks time is based on a practical and scientific basis. If a knee, an ankle, an elbow, a wrist, or a bone be under treatment where but small quantities can be injected in different localities at the one sitting,

or when an anchylosis (e. g., knee) is inevitable, then I inject every one or two weeks. WHAT QUANTITY SHOULD BE INJECTED? I should say from 1 to 8 drams, depending upon the age of the patient and the joint under treatment. Say a child one year old, I should use 1 dram, and in a person of 14 I should not hesitate to inject the maximum dose. I judge an ounce to be a good practical maximum dose. Smoky and scanty urine has frequently resulted when I used 2 ounces, or even an ounce and a half. Now I do not inject more than an ounce at one operation. I have noticed that a tolerance of the iodoform becomes established when however the dose may be increased. More emulsion can to advantage be injected in cases where the disease is advanced than when the invasion is recent. IN WHAT AGE, STAGE, AND JOINT DOES IT DO MOST GOOD? In a growing person, during any stage of the disease, and in any joint tuberculosed, I should use the emulsion. It does most good in children, and in the hip and shoulder joints. In any of the joints of children it should be employed. In the hip or shoulder joints I inject the emulsion at any age. In the knee and elbow joints of adults I believe time is saved by performing an excision. The adult knee-joint when diseased becomes a very complicated affair. It frequently is divided into so many chambers or pouches that an injecting material does not always reach all the foci, and indeed sometimes cannot touch them—e. g., the pouch extending downward behind the tibia and often the disease beneath the semilunar fibro-cartilages. The shortening resulting from a typical excision is more useful for an adult, than the partial removal of the joint; but in a youth the typical excision should in my opinion never be done. The same may be said of an elbow-joint, except this, that we must remember that an elbow partly or wholly anchylosed at a right angle is usually stronger than when the elbow is excised. The functional results, however, of excision of this joint are excellent in adults, but in children of all ages the injection treatment gives the most satisfactory and useful elbows. When the ankle joint of an adult is affected and is but slowly benefitted by the intraarticular treatment, the question of amputation should be carefully considered in preferenee to excision, especially should the astragalus or other bones of the foot be diseased. It is rather the exception for a typical excision of an ankle to furnish as strong and useful a limb as an artificial one. In dealing with the wrist-joint of adults we can be more conservative, and stick longer to the injection treatment as it can be used quite often without an anæsthetic and the hand is easily nursed. In pursuing this treatment in children, chloroform should be administered unless there is some contraindication.

HOW MANY INJECTIONS EFFECT A CURE? From 1 to 20 or more, usually 3 to 6, depending upon the age of the person, stage of the disease, and the joint affected, and also upon whether the joint invasion is locally primary or secondary to bone disease. You, of course, understand that

every tubercular affection of a joint is secondary to inoculation of an abrasion in the respiratory tract, alimentary canal or cutaneous surface. I shall not take the time today to report my cases. A few cases of hip-joint disease have been cured by one injection, several by two or three, and in one case I used eleven injections in nine months before a cure was effected. At least, there is no return of the disease in two years. This is the greatest number of times I have had to inject a joint. A few days ago I examined the knee-joint of a young girl which Dr. Fenger of this city injected six years ago and only once, and no return. Let me say to you that the intraarticular injection of an emulsion of iodoform in glycerin or olive oil is of incalculable value in the treatment of tuberculosis of joints. It should be more extensively used. As compared with any other treatment yet produced, it cuts short the disease to months instead of years, and the suffering to days instead of months.

Heart Disease.

At the Nottingham Medico-Chirurgical Society, meeting February 19, '96 Dr. Handford read notes of 500 cases of Heart Disease taken from hospital and private practice. He drew attention to the influence of over-eating and drinking in causing heart disease by inducing persistent high blood tension and consequent arterio sclerosis. Alcohol, even in what was usually called moderate quantity, shared with tea, coffee, and tobacco the disadvantage of raising the blood pressure. Spirit drinking might cause acute dilatation, while excessive beer-drinking might bring about the same result more slowly. Patients with heart disease should be moderate in the consumption of even bland fluids. In anæmia dilatation was compensated by hypertrophy, but enlargement often remained permanent. Such was the case often in dilatation from over exertion. But an important element in prognosis was the original size and quality of the heart and vessels. Successful athletes had had hearts above the average in size and quality. It was not only a great disadvantage, but an actual danger, shortening life, for a patient with heart disease to grow very fat. Besides the risk of fatty overloading of the heart, the increased weight entailed extra strain, and more pumping power was required. In treatment the first question to decide was what cases were best left alone. Next, were the symptoms complained of due to an existing heart lesion or to some more obscure cause? Digitalis had maintained its pre-eminence against all more recent competitors. Its action seemed sometimes to be capricious, and there were numerous cases, especially of aortic regurgitation and mitral stenosis, where it evidently did harm. The key to the right understanding of these apparently contradictory cases lay in the proper appreciation of the action of digitalis in contracting the arterioles an effect too often overlooked.

The Other Side,

Dr. T. P. Lockwood (Transactions of the Tri-State Medical Association of Mississippi, Arkansas and Tennessee) read a paper on the above subject in which he relates a case of twin births, under peculiar circumstances, in a woman, aged 30, of previous good health, good personal and family history, and no hereditary taint. The first child was delivered by forceps, after 21 hours of labor, with active, severe uterine pains, breech presentation.

Twenty-two hours later the second child was delivered, without forceps, breech presentation, with almost complete inertia of the womb. Uterus well cleaned of placenta and secundines; very little hemorrhage; contracted well down; patient feeling comfortable and doing well. On the fourth day symptoms of septicæmia set in with chill, high fever, suppressed lochia, &c. In addition phlegmasia dolens seized left limb, parotitis right parotid gland, and ophthalmic inflammation the right eye. Under appropriate and vigorous treatment this formidable train of ugly symptoms rapidly subsided, and by the fifteenth day patient was in a state of convalescence, cheerful, insisting that she was well, and wanting to get up out of bed. At 7 o'clock that evening, without any warning, patient was suddenly seized with fatal hemorrhage and died in a few minutes.

The points of interest suggested were: Prolonged labor with severe uterine contractions, breech presentation, forceps delivery, with first child; inertia uteri, breech presentation, without forceps, with second child; length of time between births; rapid development of septicæmia with complications, course and subsidence to complete convalescence; unannounced, unaccountable fatal hemorrhage on the fifteenth day in a condition of apparent marked convalescence.

Septicæmia is a formidable malady under any circumstances, to prevent which modern midwifery, or advanced scientific obstetrics demands, with specious authority, comple wholesomeness in the surroundings of the lying-in room; absolute cleanliness of patient, bed, linen, nurses and attendants, and instruments; disinfectants *ad libitum*; asepsis pure and undefiled everywhere, and an accoucher immaculate in person and faultless in apparel. Yet the reports of hospitals and well appointed sanitariums inform us that septicæmia claims its victims by the thousands under the most favorable environments. The condition of patient (as is the case with thousands) was exactly the reverse. Confined in a hut; scarcely protected from the winter's chill, with but little fire, no comforts, sparce, unsightly bedding, and abundant filth were the bleak and dismal surroundings. Yet she survived the shock of a multitade of ailments and went on to convalescence.

He says: Now where is boasted science? "How can these things be?" What solution of the difficulties in these widely opposite conditions?

Do microbes really secrete their own ptomaines of distruction? Is the bactericide lodged in the white corpuscles of the blood, or lurks it in the serum and juices of the system? Or, after all, may not there be an unseen hand that plants the germ of disease in every organism and furnishes the antidote according to His own will and good pleasure?

The Vaginal versus the Abdominal Route in the Treatment of Diseases of the Uterus and Adnexa.

Prof. W. R. Pryor (New York Polyclinic, Feb. 15th, 1896,) discusses this subject. His observations are based upon forty-seven hysterectomies in pus cases with one death; fourteen vaginal sections for adherent retroversions and flexions (the author's method) and a great many cul-de-sac sections for broad ligament cysts, hydrosalpinx, ovarian cystometa and unilateral tubal disease. None of the cases other than the one hysterectomy has died after vaginal section.

He formulates a rule for the guidance of operators: All pelvic lesions should be treated by vaginal section, and all abdominal lesions by cœliotomy. There are these two classes: lesions which in situation and important relations remain pelvic; and those with an abdominal evolution, or with abdominal associations, which warrant their being classed as abdominal rather than as pelvic. As belonging to the latter class he mentions tubo-appendiceal abscesses, papillomatous ovarian cyst, large fibroids, &c. But rarely will it be found necessary to perform cœliotomy for the removal of a pus tube, or extra-uterine pregnancy, broad ligament cyst, hydrosalpinx, or to remove the uterus. As stated he treats adherent retropositions through the cul-de-sac and without suture.

He lays particular stress upon the importance of looking down into the vagina, the patient in the lithotomy position and thrown into Vandelenberg's position. In this way the operator can see every step of his operation, and use his instruments under the guidance of his eye.

All operations for pelvic inflammation should be begun by opening the cul-de-sac, and thus making a most thorough exploration. Palliative treatment of pus cases should always be through the cul-de-sac.

The disintegrated puerperal uterus should be removed by cœliotomy, as with such a friable organ vaginal section takes too long.

He condemns those who seek to lead men to remove abdominal growth through the vagina. A few cases will get well, but such work is experimental. He also utters a warning lest those who have been classed as conservative shall abandon conservatism for the radical vaginal operation, as the latter is so easy and safe.

The indications for vaginal hysterectomy are the same as for the suprapubic operation, bilateral pus foci, or tubercular disease only.

But many uteri are removed because of the traumatism attending

clumsy efforts to get into the pelvis from below. There is no contest between the two operations, but each has its place, and the indications for each are marked.

Typhoid Fever in Childhood.

Dr. J. L. Morse (Boston Medical and Surgical Journal of Feb. 27, 1896) in a paper bearing this title has given the results of a careful analysis of 284 cases of typhoid fever in children under 15, which occured in the Boston City Hospital during the thirteen years ending Jan. 1, 1895, In addition he has thoroughly reviewed and summarized the literature of the subject. His conclusions, based on his own cases and about three thousand reported by others, are as follows:

Typhoid is a common disease in childhood but rare under two years. It occurs about as frequently in children between five and ten as in those between ten and fifteen. The mortality in cases under fifteen is about six per cent., or half that in adults. The rate of mortality increases directly with the age. The course is shorter and less severe than in adults, this, as well as the low mortality, being due to the slight intensity of the intestinal lesions. The severity increases directly with the age. The onset is acute in about one-third of the cases in the second five years and in about one-fifth of those in the third five years. Nose-bleed occurs in about 50 per cent. of all cases and is often severe. The average duration of the fever is a little less than three weeks, being somewhat shorter in younger than in older children. The proportion of cases in which the duration is not more than ten days is twice as great in children under ten as in those over ten. The temperature curve is less typical than in adults. The remittent second stage is absent in more than 50 per cent. of the cases under ten and in 40 per cent. of those between ten and fifteen. Relapses are nearly as frequent in children as in adults and follow the same course. The tongue is rarely as dry as in adults. Vomiting is a common initial symptom and is not very infrequent during the course of the disease. It is not an unfavorable symptom. Constipation is more common than diarrhea, especially in younger children. Distention is present in from 50 to 70 per cent. of all cases, and is more common in younger children. It is not infrequently extreme. Tenderness is present in about half of the cases, but is rarely very marked. Hemorrhage is very rare under ten years and much less common above that age than in adult life. It is fatal in about half of the cases. Perforation is extremely uncommon. Rose-spots are present in from 60 per cent. to 70 per cent. of all cases. The spleen can be demonstrated clinically to be enlarged in from 80 per cent. to 90 per cent. of all cases. This enlargement is usually moderate but may be extreme, more commonly in young children. Clinical bronchitis occurs in about 40 per cent. of all cases. In some

cases it may mask the abdominal symptoms, especially in younger children. Other pulmonary complications are rare. Headache is complained of in about 75 per cent. of all cases but is rarely severe. Marked nervous symptoms occur in at least 25 per cent. and are equally common at all ages. The condition is one of stupor in from 15 per cent. to 25 per cent., and of delirium in the remainder. The delirium is more commonly active. Crying out at night is common, especially in young children. Meningeal symptoms are not infrequent and are more common in young subjects. Neuritis occurs, probably more often than is supposed. Albuminuria is common and occurs with equal frequency at all ages. Serious renal complications are rare, especially in young children.

This article is certainly a valuable addition to our knowledge of this disease in children. It represents a vast amount of pains-taking and careful work, corrects many false impressions, and settles many disputed points. It is well worth careful perusal.

Living Greek in our Schools.

Dr. Achilly Rose, the agitator for the introduction of living Greek in our schools, and for the idea to adopt living Greek as the international language of scholars, read a paper before the German Medical Society of New York on February 3d, 1896, giving a historical sketch of Greek. He showed that the new anatomical nomenclature of the German Anatomical Society was a monstrocity, full of hybrid words and grammatical errors. The great men who composed the commission to publish this work was ignorant, that the nomenclature of the living Greek found in the modern Greek books on anatomy is simply perfection, and that nothing near as good can be created by any body of scholars.

The commission of the Anatomical Society undertook an impossibility, namely, to resurrect the Latin, a dead language, and therefore the work they offer us is likewise an impossibility. It is a deplorable fact that almost the whole civilized world is in error about the relation of the old to the modern phrase of the Greek language. The language written and spoken to-day in Greek is exactly two thousand three hundred years old. Contrary to the common assertion about our not knowing how Greek has been pronounced during the classical period, we know positively how the Greeks have pronounced their language from the seventh Century (B. C.) down to this day.

It was the church which has aided to preserve the pure Greek language from generation to generation, and it was the beauty and magnitude of the classical literature which made it impossible that a new idiom would be introduced. It was on the other hand the hatred against the orthodox Greek church which made the adherents of the Latin church invent all those calumnies about the Greeks and the Greek language with

which we are so familiar. They are familiar to every body, because they are repeated even by people who neither have interest in the religious animosities, nor know anything about the living Greek language. The Greek of to-day consists

1. Of all words, forms, and constructions which, after the fall of Greece, composed the simplified general language.

2. Of words, forms and constructions from the old dialects which already, during the classical time entered into the general language.

3. Of elements of the old dialects which have been introduced in the new Greek literary language.

No foreign words exist in Greek. Like the virtue, which alone is her own master, not as all other things subject to the influence of fortune, so is Greek, and Greek only of all European languages her own master.

The general impression is that Dr. Rose has thoroughly studied and masters completely his subject, that he has given us the clearest history of the modern Greek language that ever was written in such concise form.

Roetgen's Discovery as Applied to Medicine.

Early in February Dr. Henry W. Cattell (International Medical Magazine, February, 1896, Medical News, February 15th, 1896,) repeated successfully some of Roetgen's experiments. Illustrations accompany the article, showing a number of interesting points. A portion of the small intestine was taken, containing mucous and fæcal matter, in which was placed a lead pencil, a penny and a gall-stone. The penny is markedly distinct; the lead of the lead pencil is plainly seen, while the gall-stone can be made out with difficulty. A picture of a hand shows the doubling of the carpal bones in one place, with a corresponding duplication of the phalanges in a case of polydactylium with webbed fingers. The hand of a cadaver shows shot and glass *in situ*. Other objects, such as a normal hand, a mouse, ankylosed fingers, blade of penknife covered with lung-tissue, pins in cirrhotic liver, etc., are very clearly shown. The technique is as follows:

An ordinary photographic plate is introduced into a *wooden* plate-holder, which in turn is placed upon a firm table. The hand or other object to be skiagraphed is now rested upon the plate-holder, and a Crookes-tube is arranged from three to five inches above the object. An ordinary Ruhmkorff coil and six or seven storage cells are sufficient to supply the electrical current, though a higher frequency current is better, as the time of exposure can thus be materially lessened. After exposure the sensitized plate is developed by any of the ordinary methods, and prints can then, of course, be prepared from the negative.

After suggesting a large number of uses of the new discovery, such as diagnosing fractures and luxations, foreign bodies in the larynx, time

of fixation of the joints in coxalgia, the situation of the fœtus in pregnancy, atheromatous arteries, etc., Dr. Cattell concludes that from our present knowledge, first, a new means of medical diagnosis has been added by Roentgen to the already large list at our command; second, the discovery will prove especially valuable in diseases of the bones, more especially those of a surgical nature; third, many new uses of skiagraphy will be discovered as time goes on, the process is amplified, the time of exposure lessened, and so on.

The Permanent Cure of Anteflexion by Operation.

Dr. Keith (British Gynæcological Society, Thursday, February 13th, 1896) for the treatment of anteflexion associated with dysmenorrhœa advocated the performance of Dudley's operation, the object being to fix the cervix backwards and thus bring the cavity of the body of the uterus and the cervix in a straight line. The whole thickness of the posterior lip of the cervix was divided directly backwards; each of the two cut surfaces were them bent on themselves and fixed in this position by stitches. Dr. Keith gave the history of several cases, of which the following is an example: Miss B., aged 27, had never menstruated without severe pain, sickness, and headache; there was much trouble with the bladder, and during the periods she had to make water as many as thirty times in the twenty-four hours. She was operated on in October, 1895. Since then she had had three periods normal in every respect, and there was now no trouble with the bladder.

What Constitutes a Cure in Pulmonary Tuberculosis.

The Columbus Medical Journal, March 3d, has an original article by Dr. C. P. Ambler, of Canton, O., upon "What Constitutes a Cure in Pulmonary Tuberculosis." The writer takes the position that the average case reported as "cured" is misleading, and that the custom of reporting cases as "improved" under certain medication is to be deplored. Under almost any rational treatment, depending in great part upon the general hygienic supervision, the average case will improve in all the general symptoms. Such cases are reported upon too early. We hasten to report the case as soon as any marked improvement is noticed, especially if we have been using some remedy which we are riding as a hobby. Statistics will never amount to anything as long as such a course is pursued.

The writer "interprets a cure to mean either a fibrous or calcarious change with elimination of all tubercular bacilla." Improvement in general symptoms is too often taken to mean healing of the local condition, when in fact the disease is only quiescent, because the diseased area has become encapsuled. As long as this fibrous encapsulation remains the patient may enjoy good health; and if the contents undergo fibrous or

calcarious change a perfect cure is the result; but should the capsule break down before such changes have taken place, auto-infection results, and symptoms of active envolvement of new tissue follow, frequently with the patient appearing generally to have fully recovered.

This is what happens to the patient that improves at some climatic resort, returning home apparently cured only to liberate an encapsuled tubercular deposit with disastrous results.

A "cure" is a matter of years and not months. We should be guarded in expressing our belief that fibrous or calcarious changes have taken place. No man can say whether or no such a change has entirely taken place. If for two or three years no rigors whatever of an active tuberculosis are noticed, we may then feel that the case *may be cured.*

Inasmuch as Dr. Ambler was for four years connected with Winjah Sanitarium for Diseases of the Lungs and Throat, at Asheville, N. C., this paper is of more than ordinary interest.

Pneumonia.

At a meeting on February 20th, 1896, of the Harveian Society, Dr. J. Edward Squire read a paper on Pneumonia. He says: Though chill was the common determining cause of pneumonia, fatigue or debility after illness rendered the risks from that cause greater. A case was quoted where pneumonia followed a chill during convalescence from measles. The not infrequent occurrence of pneumonia as a complication of enteric fever emphasised the importonce of deciding in any given case whether the lung mischief fully explained the course of the illness as well as the existing symptoms. The occurrence of pneumonia had sometimes delayed the recognition of the disease of which it was merely a complication. The peculiarities of the pneumonia of influenza were referred to. Whether or not malaria predisposed to pneumonia; there seemed little doubt that the cachexia left after malarial poisoning added to the danger of a subsequent attack of inflammation of the lung. The question was considered whether acûte congestion of the lung occurred, or whether the cases so described were not in fact cases of pneumonia. Pneumonia might prove fatal before the lung consolidation was complete, and in other cases resolution of the pulmonary exudation might occur before this has coagulated. In both instances the signs and symptoms of pneumonia were not fully declared, and when recovery took place in the first stage of the pneumonic process the term "abortive pneumonia" might be used. Passing to the course and symptoms of pneumonia, instances of divergence from the usual course of the disease were mentioned, and some of the more important complications and sequelæ were illustrated by cases which had come under the author's observation, A stimulant line of treatment was strongly advocated from the first. The necessity for a plentiful supply of nour

ishment, which must be administered frequently in small quantities, made good nursing essential. The good results obtained by the inhalation of oxygen in certain cases, and the relief following a tepid bath in one instance were referred to. The details of the treatment must depend upon the individual peculiarities of each case.

Pretuberculous Albuminuria.

Teissier (British Medical Journal) after giving particulars of a case states that pretuberculous albuminuria occurs in young subjects but not in those suffering from true hereditary tuberculosis; it is a premonitory stage correspondsng to the congenital mitral stenosis so often seen in the offspring of tuberculous parents, from which it differs in affecting male children particularly, while the cardiac lesion is much more frequent in girls. Its origin is difficult to explain, as it is usually unattended with either fever, dyspnœa, or dyspepsia; it is most probably due to the congestive action of the tuberculous virus upon the renal parenchyma. Bouchard has shown that tuberculin exerts a vasodilator effect, and Guinard and Bory have obtained transient albuminuria by its injection. Teissier considers that the affection is due to an impregnation of the organism with tuberculin, which forms an antecedant stage to the actual bacillary invasion. It is essentially intermittent, but although a diurnal cycle may occur, it is not nearly so constant as in the pre gouty albuminuria, It is characterised by the presence of albumen in pale urine of very high specific gravity and very slight acidity; the urine is indeed often neutral. The albumen precipitated by Heller's method is always pale, colouring matter being deficient; salts, on the other hand, are very abundant, particularly earthy phosphates. This is due, according to the author, to a "demineralisation" of the viscera, and particularly of the lungs, a view which is borne out by the observations of Marcet on the increased amount of phosphoric acid in phthisical sputum. Pretuberculous albuminuria is further characterised by the absence of casts or other formed elements from the urine, and particularly by its extremely high toxicity, which distinguishes it at once from all other kidney affec tions associated with tuberculosis. There may be considerable difficulty in the diagnosis from the albuminuria preceeding gout: apart, however, from the different family history, the latter is marked by greater persistence and more regular recurrence of the albumen in the urine, which also contains a large excess of urea, urates, and colouring matters. Then, again, the facial aspect of the goutily inclined tends to the florid type, while the tuberculous patients are more often pale and wasted, with nocturnal polyuria, and thickened arteries. Finally, the intercurrence of pulmonary affections may clinch the diagnosis. When tuberculous manifestations appear in the lungs the albuminuria often disappears, so that

the clearing up of this symptom without improvement of the general health frequently betokens the onset of phthisis. With regard to treatment, it is obvious that the condition to be coped with is not albuminuria but toxæmia, so that a too vigorous insistence upon milk diet or rest in bed is to be deprecated. Hygienic measures are of the first importance, and the most valuable drugs are salines—especially phosphates—and arsenic, together or alternately with vaso-constrictors, such as iodides and tannates. Creasote should be used with great caution, for fear of affecting the digestion and so converting the temporary into a permanent albuminuria.

Hysteria in Children.

Dr. J. N. Upshur, in a paper entitled Hysteria in Children (read before the Richmond Academy of Medicine and Surgery, May 28th,) calls attention to the fact that many of the nervous phenomena in children are difficult to relieve because we do not clearly define the conditions under which they exist. He points out the symptoms, in hysteria in children, are capricious, mental, and sensory. In children motive to mislead is absent.

Hysteria may be defined in children as in adults "to be a functional nervous disease, characterized by special symptoms, any or all of which are related in varying degree to abnormal psychical conditions." It is only necessary that the mentul condition of the child shall be sufficiently developed to appreciate the difference between good and evil.

He pointed out that in childhood the disease is abortive, as compared with the manifestations in the adult. The causation is heredity, alcoholism in father, exhaustion from any cause, anæmia during convalescence from acute disease, trauma, over-indulgence, &c. Children of sturdy, healthy parents, resist hysterical and other neurotic tendencies. He emphasized the importance of proper hygienic surroundings in our school buildings, and the saving the mental strain of examination time. He pleads for improved conditions in the home training, that children should be kept back and out of fashionable life, and thus do away with the precocity and pertness of the modern children. Points out the necessity for improvement in the hours of sleeping and eating. He gives illustrative cases of the trouble as it occurs in children.

The treatment is largely *preventive*. The family physician's knowledge of the child's antecedents should dictate the necessary care as to nursery, hygiene, training, &c. Discipline should be kind yet firm, child not allowed to be freakish or give way to tempers, nutritious wholesome food, regular hours for sleep and exercise, and to *guard the child absolutely from all undue excitement*. Curative treatment, all measures for improving the general health.

Abortion; Perforation or Abscess of Uterus?

Schwab introduced a discussion on this subject at the Obstetrical Society of Paris, January 15th, 1896. A woman aborted at the fourth month, and died on the fifth day of childbed after septic symptoms had developed. Schwab detected on the posterior aspect near the fundus, a finger's breadth from the origin of the right tube, a perforation of the diameter of a two-franc piece. It lay at the bottom of an excavation in the mucous membrane and was surrounded by circumscribed peritonitis. He believed that these appearances represented a traumatic perforation. Porak was of a different opinion. He once examined a uterus from a patient who died after abortion. There were several abscesses in the walls; one had opened simultaneously into the peritoneal and uterine cavities, causing a loss of substance as wide as a franc piece. Doleris also believed that the perforation was due to abscess in Schwab's case. Budin remarked that had there been traumatic perforation the patient would not have lived five days. She would have rapidly succumbed to acute diffused peritonitis.

The Treatment of Intestinal Obstruction following Laparotomy.

Adenot (British Medical Journal) discusses at some length the causes, symptoms, and treatment of post-operative intestinal occlusion. This grave sequence of laparotomy is in most instances caused by intestinal adhesions to surfaces denuded in the course of the operation. It may, moreover, be due to bands, to faulty positions of intestine, to intestinal spasm, and to errors committed in the operation. The author attaches much importance to an abnormal condition of the splenic flexure of the whole as a further cause of the occlusion. The large intestine at this part of its course may form a deep retiring angle, by the sides of which intruding coils of small intestine may be compressed. In considering the treatment of post-operative obstruction, the author insists on the advisability in most cases of surgical intervention. Whilst acknowledging that success may sometimes follow the administration of mild purgative draughts or enemata; he points out that the use of such means should be very carefully practised and supervised, as they might lead to a speedy aggravation of the patient's condition, and necessitate an early operation. The use of active purgatives and also of opium is condemned. Laparotomy, it is urged, should be performed in cases in which repeated vomiting has followed a complete retention of stools and intestinal gas lasting from three to five days. The surgeon is advised to examine the cæcum in the first place. If it be distended he should next direct his attention to the sigmoid flexure. When the extent and seat of the occlusion have been determined, the cause should be sought for by examination of pedicles, of

raw surfaces, of possible kinks of intestine, and of drainage tubes. Obstruction at the splenic flexure is indicated by distension of the transverse colon. In cases of difficulty it may be found necessary to expose the whole of the intestinal canal at the same time, but this step so-called evisceration should be avoided if possible. In cases in which the obstruction is seated at an infected centre, as after removal of suppurating uterine appendages, the surgeon should, in order to prevent infection of the whole peritoneal cavity, avoid laparotomy. It is impossible to lay down strict rules for his guidance in such an emergency. He must be guided by the circumstances of the case. In some few instances he might rest content with the performance of an enterostomy. Although this operation in other cases of post-operative obstruction is more simple than laparotomy, the latter operation, it is held, is decidedly the operation of election. An artificial anus should not be established except in cases in which the patient is *in extremis*, or after failure to find any definite cause of the occlusion, or, again, if the symptoms of obstruction persist after the performance of laparotomy.

Typhoid Fever.

Dr. F. J. Bowen, in the Medical Age, treats in a practical manner of Typhoid Fever. In reporting an epidemic he says that very few cases have any possible relation to previous cases as to one another, except in such conditions as might be induced by season and weather. He suggests that excessive rains, early in the season, washed organic matter from the surface into the wells, which, as the drouth supervened, was drawn up with the water and drank.

Although this does not accord with the theory most commonly taught, it is not without the support of eminent authority, and certainly agrees with the actual experience and observation of many practitioners.

The writer appreciates the fact that to treat disease successfully is the essential requirement of a physician, and gives his ideas as to remedies with clearness and detail.

The disease, he says, runs a very routine course. Certain general principles of treatment apply and are required in every case. Well directed, common sense medication is of service, and thorough acquaintance with its natural history, pathology and complications of utmost importance.

To maintain nutrition, milk is obviously the superior agent, but as regards quantity, may be overdone. Much more nourishment and less intestinal disturbance will be derived from a quantity which can be properly assimilated.

If the case is seen at its beginning, he invariably begins treatment with a full dose of calomel. Intestinal antisepsis he says is the rational plan on which to base the therapeutics of typhoid.

He speaks of a hæmorrhagic tendency, and suggests the idea that it often serves a useful purpose; citing cases where decided amelioration of symptoms followed respectively epistaxis, metrorrhagia and hæmorrhage from bowels. But continuing he says that after the first ten or twelve days it is, of course, a complication to be dreaded and guarded against. That attendants should be carefully instructed and provided with remedies for its management.

No other one medicament he says meets as many indications as turpentine, and in moderate doses he administers it throughout the latter half of the disease.

As regards temperature he says that its effects rather than thermometer figures should be the guide for its reduction. That if necessary he should use the cold bath or pack, rather than the so-called antipyretics, but that it is exceptional where, by careful management in other respects, the temperature cannot be kept within safe limits under the use of intestinal antiseptics, and by means of the sponge bath frequently employed but never so cool as to be ungrateful to the patient.

It is much more creditable, he says to *avoid* high temperature by giving attention to diet and digestion, avoiding constipation, retention of urine, and other sources of irritation, than to resort to extraordinary means to overcome their ill effect.

Signs of weakening heart and spine should be watched for, and met, at their earliest manifestations by appropriate remedies.

As an hypnotic in critical cases he prefers deodorized tincture of opium. Especially during the third week is the patient more secure from the accidents to which he is liable when this drug is administered.

The physician should direct in detail the management of the case, such as bathing, feeding, arrangement of bed, turning of patient, disinfection of dejecta, &c. Later he should bear in mind the various complications and sequelæ.

The writer deprecates the single idea treatment for the purpose of establishing some pet theory, and in common with many others has evidently seen the need of more instruction in practical, common sense form for the treatment of disease.

It is not generally known that in those cases in which a soluble salt of an alkaloid employed in connection with the commercial bromide salts, precipitation of the basic alkaloid takes place, making a very dangerous mixture. This state of affairs is caused by the abnormal amount of chlorides as an impurity in the commercial bromides. All this trouble can be averted by prescribing Peacock's Bromides in all cases in which the bromides are indicated. It is a convenient and palatable preparation, and when prescribing, it is only necessary to bear in mind that each fluid drachm contains 15 grains of the combined chemically pure salts.

The Dangers of Delay in Dealing with Pus in the Female Pelvis.

Dr. T. A. Ashby, of Baltimore, (American Journal of Obstetrics, etc., March, 1896,) contributes a paper on this subject in which he pointed out the dangers of delay in removing pus from the female pelvis.

Pus is not an innocent material even when evolved in dense cyst walls, whilst it may remain comparative harmless for some months or even for several years, there is a constant invitation to trouble from over-distension of the sac walls, and consequent rupture into the peritoneal cavity Unfortunate routes of drainage may be established through nature's efforts at elimination, the drainage canal opening into the bladder, rectum or vagina, or into all of these organs, thus giving rise to complications which will render the removal of the pus sac much more hazardous. In the event of closure of the drainage canal pus absorption may ensue and septic poisoning may terminate the life of the patient. Chronic pus absorption may go on in such a gradual way as to lower the vitality of the patient and lead to degenerative changes in the heart, kidneys, and other organs. Invalidism may continue for months or years from these encysted pus accumulations and from a failure to recognize the presence of the pus sac. Dr. Ashby reported several cases illustrating these conditions—one case in particular where the patient was treated for weeks for typhoid fever, in which a removal of a pus sac put an end to the febrile condition and promptly restored the patient to health.

Pus sacs in the pelvis are often overlooked, but a careful physical examination will usually reveal the condition.

Careful examination of the pelvis should be made in all cases suffering from pelvic pains or with rises of temperature.

The pus tumor, whenever found should be promptly removed. Delay is always risky and the complication invariably increase the mortality rate. Simple cases give good results. Long standing cases increase the risk of operative measures.

Serum Therapeutics of Leprosy.

Carrasquilla has communicated to the National Academy of Columbia the successful results obtained by him in cases of nerve leprosy by the use of anti-leprous serum; he now recounts the effects of this remedy (the method of preparation of which is not given) in 3 cases of tubercular form of the disease. In the first patient the disease was far advanced, but under treatment the face, which was red, swollen, stretched, and leonine, became pale, while the skin regained its smoothness and pliability. At the same time the tubercles disappeared, leaving only yellowish stains. It was noticed that each injection evoked hypersecretion from the skin and the mucous surfaces, appearing to exert a special influence on the bronchial mucous membrane. The patient also regained appetite and power of

sleep. In a second instance the tubercles, instead of disappearing, as in the other, by absorption or desquamation, softened, suppurated, ulcerated, and eventually cicatrised. Where œdema was present it disappeared with such rapidity that in five days no trace remained. In the third case the disease was of a mixed type, the nervous symptoms predominating. This was the only one in which the author observed the complete return of sensibility in an anæsthetic patch, the skin remaining healthy. He has in all treated 15 cases of the disease with the serum, and in no one of them has any further manifestation of the action of the bacillus occurred after the first injection. He concludes that this remedy restores sensibility more or less rapidly according to the severity of the peripheral nerve lesion. Stains lose their color without disappearing completely; œdema vanishes more or less rapidly, and with its removal the skin returns to its physiological condition. Tubercles of the mucous membranes are cured in a similar manner to those of the skin, and the mental state is improved no less than the physical.

Congenital Luxation of the Hip.

Brodhurst (The Hospital, March, 12, 2896) states that luxation of the hip may be produced during birth or in the course of intrauterine life. It may coincide with other malformations, but except in the hip congenital displacement of bone is extremely rare. The conditions of the head of the femur, and of the acetabulum, vary, it is pointed out, according to the duration of the lesion, and indicate at different periods varied methods of treatment. When the child is well developed and free from other malformation, the luxation of the hip may be reduced up to nearly the end of the second year, and, when exercise of the affected limb has not been permitted, this period may be extended to the third and even the fourth year. After a time, however, the cotyloid cavity is occupied by fat, or a mixture of fatty and fibrous tissues, and the trochanteric muscles have commenced to contract. In such cases much difficulty will be experienced in keeping the head of the femur in place. If the contraction of the muscles cannot be overcome by continuous extensions the author would divide the insertions of the rotator muscles and also the adductor magnus subcutaneously, and then keep the limb extended by weights for four weeks, after which, the little patient being still kep at rest, passive movements of the thigh are practised. In cases in which the acetabulum is so filled up that it is impossible to restore the head of the femur to its normal position, a cavity of sufficient dept to receive the displaced bone is formed by scraping away the fat and fibrous tissue by a specially devised instrument. This operation is also a subcutaneous one, as the author is opposed to the open methods of Lorenz and Hoffa, which in his opinion afford less freedom to the movements of the joint, and have a slight tendency to result in ankylosis.

Rheumatic Fever.

This was the subject of a paper read at the Leeds and West Riding Medico-Chiurgical Society, Feb. 17th, 1896 by Dr. Churton. He had found in a series of 135 cases of acute rheumatism under his care in the Leeds General Infirmary in the last five years, 6 cases in children of or under 10 years of age. In 5 of these the cause assigned was a wetting, in 1 influenza. There seemed to be an almost general agreement that rheumatism was of microbial orgin—probably it was intestinal or gastro-duodenal, and was swallowed with food or drink, or with saliva; that chorea was a rheumatic disorder; that chills and wettings aided the micro-organisms, but could not alone cause rheumatism. Even if uric acid or glycocine in the blood were the direct excitant of arthritis (and chorea) their presence was probably due to the action of a microbial toxin upon liver cells and leucocytes. The details tabulated concerning the 135 cases were: (1) state of health before the attack; (2) the assigned cause of the attack; (3) the joints first affected; (4) a few observations in some recent cases upon acetone, indican, etc., in the urine. (1) The previous health was defective in 98; in only 9 fairly good; in none perfect. The better the health the slower was the onset, and the more potent must be the auxiliary causes; repeated wettings and strains; a series of colds; hard wet work; wet clothes kept on many hours, etc. Of the 98, 23 were ill-developed, and had never been strong; 16 had been exhausted from overwork, want of food, or anxiety; 12 had had several previous attacks; 31 had some chronic disorder, migraine, ozæna, otorrhœa, leucorrhœa, amenorrhœa, various results of insanitary home, etc. In 26 cases the reports furnished no evidence, (2) Causes assigned by patients: wetting, 62; chill. 15; damp clothes, 13; injury, 2—a blow and a sprain; unhealthy house, 2; other causes—influenza, fatigue, constipation, etc., 9; no cause apparent, 5; not stated, 25. Constipation, that is to say, retention of toxins and cultuae media, was prominent in many of the cases; diarrhœa in only 1; indican, only recently looked for, was found in 9 (in these aperiants large enemata and salol were more effective than salicylates); it was not found in all. (3) The joints first affected were clearly indicated in only 33 of the cases. Chills or injuries, when they occured, seemed to determine the time and site of the inflammation; in not one of the 33 was there an exception to the rule that the limbs which were most or alone chilled or injured were the first to show symptoms—arthritis or pain. This fact attracted attention to the following case: A boy, aged 9, who had previously suffered from rheumatism, was startled by a man leaping out of an ashpit in the dark, and seizing his arm. Chorea began immediately; three days later, arthritis. In this case, the injured part was the brain, the impressions on the sensorium would cause violent impulses and excitations; the motor areas would receive the equivalent of a

real blow. And as in the limbs injured by a blow and a sprain respectively the rheumatic inflammations appeared first in them, so in this case the rheumatic disorder began in the injured brain. Thus it might perhaps become intelligible why chorea sometimes preceded and sometimes followed arthritis. The development of the brain and the diminished intensity of fear as age increased, might explain the diminished frequency of chorea after youth. Probably fright alone could no more cause chorea than chill or wetting. Chorea by imitation, if it really existed, and was not a true epidemic, was at all events not more difficult to explain than other functional nervous disorders. The treatment of severe chorea by food and wine, sometimes in large quantities, did not, indeed, resemble the ordinary treatment of rheumatism, but though the movements were violent the real disease was chronic, non-febrile; and the condition, then, to be treated was exhaustion and impending disintegration of nerve cells.

Diathesis and Disease.

The question of constitutional liability to diseases is one of great difficulty. It is, of course, well demonstrated in diseases in which heredity can be traced, as in ichthyosis, a disease which descends sometimes, like a biblical cure, to the third and the fourth generation, and which conforms to the general laws of hereditary transmission. Psoriasis, again, sometimes occurs in successive generations, though usually it is more a family disease than an hereditary one. This family tendency is well illustrated in xeroderma pigmentosum. Ruder has recorded a series of cases where, in a family of eight boys and five girls, seven boys were affected and the rest of the family escaped. Beyond the facts of heredity and family prevalence we know little, though much has been writren concerning constitutional proclivity to disease; and so many diseases that were at one time believed to be hereditary, or, at least, constitutional; have been traced to purely local causes, and sometimes to bacterial agency from without, that dermatologists at the present day speak very guardedly on this doctrine.

The views regarding diatheses and temperaments have gradually melted away under critical assault, especially by the masterly treatment of the subjects by Mr. Jonathan Hutchinson in his lectures at the Royal College of Surgeons, and published in his little book, *The Pedigree of Disease*, with which everyone is, or should be, familiar. Hence we hear little or nothing nowadays of the "dartrous diathesis" and "herpetism." That there must be some constitutional tendency for the tissues to react in a particular manner to a given irritant cannot be denied, and the fact is expressed as clearly and concisely as possible by Crocker in the following passage: "The same cause will in one person excite one kind of eruption, while in another a totally different form will be produced, though the

same disease will generally be seen in the same individual, under similar circumstances." The familiar circumstance of a washwoman coming to us for eczema of the hands raises the question of how it is, after following her occupation for a number of years, and exposing her hands to the same frequent and protracted irritation of soap and water, she has become affected in this way? Seeing that the same source of irritation has been in operation innumerable times before, does it not imply some change or alteration in her constitution that she has now become affected? To a certain extent it does; at least it demonstrates a lessened power of resistance or increased vulnerability, but this is probably local rather than general. But the fact that the same cause may excite a different form of disease in different persons certainly implies some peculiarity of organisation or constitution, or tendency to tissue reaction, which may be temporary or permanent. To discover in what this tissue tendency or idiosyncrasy consists, and how it may be recognised, has been the aim of observers from all times. The sum of personal peculiarities, the type and colouring of the individual have been noted in the greatest details and with most minute care in many diseases, and in this way led to descriptions of temperaments and diatheses indicating the tendency to certain forms of disease. These have, however, completely broken down under critical assail, and for the most part it remains an unsolved problem for future workers.—*British Medical Journal.*

The Treatment of Acute Gout.

Jaccoud (London Lancet) divides this subject into three parts, according as one has to deal with the acute attack proper, the subacute attack, or the recurrent disease. In the first case he does nothing during the first five days except to promote diuresis by the most simple means, such as the administration of a litre or so of Evian or Vittel water daily, with perhaps the addition of a little acetate of potash; he does not even give milk, preferring that the "explosive energy" of the disease shall be expended on the organic tissues themselves. He applies anodyne embrocations to the joints and covers up the parts with a thick coat of wadding. At the end of this time, if the fever and pains have subsided, the attack is nearing its end and no further treatment is necessary; milk should now always be given. If no improvement has taken place Jaccoud gives 1½ gr. of hydrobromide of quinine with ¾ gr. of digitalis powder in pill four, five or six times a day; this usually produces the desired effect within two days. If, however, the pains are worse on the fifth day than at the onset salicylate of sodium in 30 to 40 gr. doses should be given, provided that the urine is free from albumen; after the second dose the urine is to be tested with ferric chloride, and if the salicylate reaction is feeble or wanting the drug must be stopped. In the subacute form of the disease,

which is characterized mainly by its prolonged duration, this treatment, though it diminishes the pains, does not cut short the attack on the ninth or tenth day, recourse must be had to colchicum. This the author prefers to give in the form of pills; he recommends Becquerel's formula, each pill containing 0.3 gr. of extract of digitallis, 2.25 gr. of sulphate (or preferably hydrobromide) of quinine, and 0.75 gr. of colchicum seeds. Not more than two pills should be given a day, to avoid the risk of excessive purgation. No special antigouty medication is to be employed between the attacks. The treatment of recurrent gout resembles that of the subacute form. In visceral gout, unassociated with articular symptoms, a late complication only coming on after years of typical gout, if there is no joint affection within twenty-four hours, colchicum is to be given at once. At the same time the joints usually affected are to be covered with powerful revulsants and vigorously blistered. Whether this abortive treatment succeed or not it is always to be adopted.

Puerperal Eclampsia.

A paper by S. C. Red (S. W. Medical Record), with the above caption, was read before the Houston District Medical Association, Jan. 27th, 1896. The paper is devoted chiefly to ætiology and treatment. He called particular attention to the fact that four-fifths of all cases are in primaparæ, and, according to his own experience, under twenty years of age. Eight cases were cited. Attention was called to the well known mental condition of the parturient, especially of the primipara.

From the foregoing he drew the conclusion that age and mental condition are important ætological factors and account, in a great measure, for the exagerated frequency of the affection in the parturient. He pointed out that eclampsia in infancy and childhood was out of all proportion to any other period of life, and yet was not considered a distinct affection, and asked the question, "Why should puerperal eclampsia be so considered?"

He reported two cases of puerperal eclampsia where no elevation of temperature occurred, and one case of uræmic convulsions, where it was very high. From this it was claimed that elevation of temperature, as a diagnostic symptom, is worthless, and he expressed the opinion that when present it is due either to some intercurrent affection or excission muscular action.

Taking for granted then that puerperal eclampsia in no way differs from others similarly affected, he accepted the general classification into symptomatic reflex and toxic. Dismissing the first two as suggesting their own treatment, he confined his attention to the toxic cases. For the latter class he claimed benefit from the use of muriate of pilocarpine, acetate of potash, and sulphate of morphine. Three cases were cited where good results seemed to follow their use.

Pepsin in Gastric Diseases.

Oppler (London Lancet) describes in a preliminary communication a method of estimating the activity of pepsin. An hour after the test breakfast the contents of the stomach are expressed, and the organ washed out with small quantities of distilled water. The washings along with the stomach contents are then made up to 1 or 2 litres according to the quantity. Dilute hydrochloric acid is added until the total acidity stands at 77. The nitrogen is a 2.1 per cent. solution of albumen is estimated according to Kjeldal's method; 20 c.cm. of this solution is then added to 50 c.cm. of the stomach contents as above obtained, and the whole is digested at 37.5° C. for three hours. After the precipitation and coagulation of the undigested albumen, acid albumen, etc., the nitrogen of the digested portion is estimated, and the percentage of albumen thus calculated. The author thus obtained figures for normal individuals with which he could compare others from cases of gastric disease. In chronic gastritis especially the formation of pepsin was much diminished. In gastric carcinoma the same thing was noted, particularly where the growth affected the body of the stomach. In early cases of pyloric carcinoma pepsin may still be found, although no hydro-chloric acid is present, but it gradually diminishes. After resection of the pylorus it is unquestionably possible to bring the affection of the mucous membrane to a standstill, and even for some recovery to occur. In atony and dilatation of the stomach diminished pepsin secretion is found only when a mucous catarrh with lessened acid secretion is present. Increased pepsin formation occurs in ulcer of the stomach, acid gastritis, chronic gastrosuccorrhœa and occasionally in chlorosis, whereas nervous subacidity and most secondary diseases of the stomach show a diminution. In nervous dyspepsia the results are variable. Pepsin secretion as measured by the activity of pepsin appears to run parallel to the secretion of hydrochloric acid, but the correspondence is not complete. The author therefore thinks that the quantitative estimation of pepsin need hardly come into constant use.

Parturition.

Dioviburnia, (Dios) in teaspoonful doses every hour after Parturition is the reliable agent to prevent after pains and hemorrhage. It being the most powerful uterine tonic attainable, having direct action on the uterus, expelling blood clots, closes the uterine sinuses, contracting the womb and preventing subinvolution.

In severe cases fluid extract of Ergot should be combined one part to four of Dioviburnia. It is the experience of the most Progressive Practitioners that in all cases where Ergot is indicated, its action is very much more efficacious by combining with Dioviburnia in the above proportion.

Degrees for Women at Cambridge.

During the fortnight which has elapsed since the memorials mentioned in the British Medical Journal of February 15th in favour of the admission of women to Cambridge degrees, various protests have been made by those who are opposed to the disired concession. Of these the most important was a meeting of certain members of the Senate on February 22nd. It is worth nothing that this demonstration by the opposition party was attended by only six of the seventeen heads of Colleges and by five of the forty-two professors. Nor can it be said that what was lacking in authority was made up for by weight of argument. In the speeches, as reported, the most striking feature was the substitution of flights of prophecy for the recognition of facts. One speaker feared that "the admission of women would ignore and obliterate the distinction between men and women to the disadvantage of both; women would become less modest and men less chivalrous." Another said that "women would be pulled down by contact with the rougher and coarser nature of men." Can those who are living in the heart of the University be unaware that for twenty years women have been competing with men on equal terms, have been attending University and inter Collegiate lectures, have shared in the use of museums, laboratories, and the University library, and that the results have not been such as are prophesied by these alarmists? Professor Clifford Allbutt argued that if women were admitted as members of the University "in less than ten years there would be at least 1,000 women students," and he asked whether if 1,000 women had founded the University it would have achieved the same results or have been in the same position it now occupies. As a matter of fact the Colleges of Sidney, Clare, Pembroke, Christ's, Queens', and St. John's were all founded by women, as were also the Lady Margaret Professorship and many university prizes. As to the fear that the admission of women to degrees would lower the standard of examinations, it is only necessary to remember that for eighteen years women have been free to obtain the medical degrees at the London University, and that the examinations have within that time become more strigent rather than less so.—*British Medical Journal.*

Through the courtesy of Mr. Wm. Henry Case, of Sallis, Miss., the travelling representative of E. J. Hussey & Co., we have been shown The Primo Syringe, which, working on an entirely new principle, appears to us to be the "*ne plus ultra*," Female Vaginal Syringe. Simple, thorough, and efficient, it is perfection in all its essential points, and we strongly advise all our medical friends to examine and test the most practical female syringe we have ever seen—The Primo.

For further information address, Wm. Henry Case, Sallis, Miss., or the makers, E. J. Hussey & Co., 80 John St., New York City.

Heredity in Disease.

The great divergence of opinion which has prevailed respecting the tendency of certain hereditary diseases to increase or diminish in succeeding generations may to some extent be due to the fact that atavism occasionally varies in the extent of its influence, as is very remarkably shown in many cases of hæmophilia, of color blindness, and of other diseases, among which insanity, syphilis, and gout occupy a more or less prominent position; for, with respect to the last two diseases, there is an important distinction to be made between them, for whilst "in syphilis the taint is transitory, and the parent is gradually getting rid of it, in gout it is permanent, and becomes intensified with advancing years." Moreover, as regards the family history of gout, "we may correctly refer not a few cases of this disease to remote inheritance, in which no corroborative history is obtained;" a case in which three brothers, who had all lived temperately, became in middle life "the subjects of severe paroxysmal attacks of joint disease, closely resembling true gout, but eventually taking the form of rheumatic arthritis." There was no family history of either affection, but such cases as these are often referred to as those of remote inheritance. There is in consequence much need of caution when discussing the extended influence of atavism in these as well as in other cases of hereditary disease; for although the prolonged disappearance of a disease which has been subject to hereditary influence may lead some observers to suspect that it has disappeared forever, yet it would be very difficult, if not impossible, for us to assign any strict limits to the range of its influence, especially when the disease, as is usually the case, has been transmitted almost, but not altogether, in the latent condition through successive generations of females.

Cystic Disease of Both Breasts.

Mr. H. B. Robinson reported a highly marked example of the above condition in a married woman, aged 49, (Pathological Society of London March 3rd, 1896). The enlargement of the breasts was painless; they were indurated generally and presented some firm nodules, without fluctuation in the neighbourhood of the nipple. The right was removed first; it contained numerous cysts, some as large as a walnut, and in one spot microscopic examination revealed the presence of carcinoma. The left breast was removed subsequently, but no carcinoma had been found in this. Sir Astley Cooper knew of the condition, but he had not observed it on both sides. Excluding cysts arising in the ducts, the speaker held that the cause of a cystic condition, whether the cysts were many or single, was chronic intestitial inflammation. The supervention of scirrhus was interesting, since breasts in a cystic condition presented microscopically a precancerous change in epithelium.

The Serum Treatment of Puerperal Fever.

Gaulard (London Lancet) reports two cases of puerperal fever treated by injections of serum. (1) A rickety woman with a contracted pelvis had a prolonged labour on August 26th. Face presentation; perneum split to anus, but sutured at once. On September 2nd the temperature rose to 105° F., and remained there for four days. On September 6th Gaulard saw her; the pulse was then 140, and irregular, and diarrhœa was present. There were some sloughs on the vagina, and the perineal wound was suppurating. He curetted the uterus, bringing away nothing of importance, packed it with iodoform gauze, and resutured the perineum. The next day the temperature had fallen to 102.7° F., but on September 8th it rose again, and her general condition was very grave; 10 c.cm. of Marmorek's antistreptococcic serum were injected into the abdominal wall. Temperature rather lower next day, and a second injection of 2 c cm. was given. From this time the temperature fell steadily, and the patient was soon out of danger. The uterine plugs were renewed every day. (2) A rickety woman was brought to the clinic on September 24th; this was her fourth pregnancy. The first labour was natural; in the two others delivery was affected by forceps. Anteroposterior diameter of pelvis 3¼ inches. An unsuccessful attempt to apply forceps had been made outside, so a basiotripsy was performed, delivery affected, and a douche of 1 in 4,000 perchloride of mercury given. Temperature rose on the 26th, and in the evening of the 27th it reached 104° F. The uterus was swabbed out with creasoted glycerine, some putrid fragments coming away, and plugged with iodoform gauze. On the 28th cultivations of streptococci were obtained from the discharge, so 10 c.cm. of antistrepto coccic serum were injected (temperature then 104.9° F.). On September 29th a second injection was given, the temperature still rising. September 30th third injection; evening temperature 102.9° F. October 1st fourth injection of 10 c,cm. Oetober 2nd evening temperature 101.5°; general condition satisfactory, and recovery hoped for. No pains was felt at any time. After this the temperature fell steadily, and reached normal on the 4th. However, later in the evening of October 2nd she was seized with bilious vomiting and meteorism, the pulse remaining as before about 120. On October 4th and 5th her condition grew worse; she became semi comatose, nothing controlling the vomiting, and she died on the 6th. The author had never before seen a case of puerperal fever die during defervescence, and he believes that the injections of serum were the cause of the vomiting. He fears that too much serum was used, for *post mortem* there was no sign of peritonitis or of any suppuration. The question of the maximum dose; to exceed which is not safe, has yet to be settled. He is sure this treatment does not do away with the necessity of using the curette, which clears away any *debris*, and cleanses the centre

of infection. If the germs have already passed into the circulation the serum can be employed against them and their toxins.

Eclampsia.

Dr. Tweedy (London Lancet) contends that Eclampsia like uræmic convulsions, arise from retention products in the system, the normal resultants of tissue waste. This retention can be brought about in one of two ways, but both are concerned, as a rule, in its accomplishment. There might be either a diseased condition of the kidneys or else an increased formation of toxin. This latter factor was, during pregnancy, always present, and was in large part to be attributed to the growth of the fœtus. He stated (Edinborough Med. Society) that the proofs were convincing that convulsions did not owe their causation to the presence of toxins in the blood, but rather to the deposit of the poisonous substance in the nervous centres, and believed that it was quite possible quickly to remove this substance from the centres of danger by depleting the blood of its water, and so causing a current to flow in its direction from the nervous centres. Purging, sweating, or blood letting would effect this; but the kidneys alone were to be relied on to directly get rid of the harmful substance. Of course the administration of fluids in any form would completely counteract any good effects which might follow the above line of treatment. Throughout the eclamptic seizure the patient was on no account to be allowed to lie on her back, for the so-called œdema of the lungs, constantly seen in cases which end fatally, had its origin in most instances in the drowning of these organs by fluids arriving to them from the mouth. Of all drugs, morphine given hypodermically in large doses (up to 2½ grains in twenty-four hours) presented the greatest number of advantages with the fewest disadvantages in the treatment of eclampsia. No greater danger could happen to an eclamptic patient than the onset of labour, particularly if it were induced artificially. Chloroform, chloral, and pilocarpin all tended to kill in a manner similar to the eclamptic poison, and therefore ought not to be employed. Neither should any fluid, or even croton oil, be placed in the mouth, the patient being unconscious. He believed that it was attention to small details of treatment—perhaps on the lines indicated in the paper—that enabled some authorities to show results immeasuaably superior to those of others, though both might be pursuing apparently a similar line of treatment.

An example of the cost of the medicinal root ginseng is afforded by a report from the military governor of Kirin, in China, stating that he has forwarded for the use of the Emperior by special messenger eight large and sixteen small ginseng, weighing altogether 94 ounces. The total cost is given at 1560 taels, or about £400, being at the rate of about £45 an ounce.

A Plea for a More Efficient Medical Law for Texas.

Dr. E. A. Woldert, of Tyler, Texas, read a paper with the above title at The East Texas Medical Association, January 15th, 1896. He says: "'Tis hard to venture where our betters fail, or lend fresh interest to a twice told tale." It is a generally conceded fact that the process of evolution is necessary for the progress of mankind. Useless appendages retrograde. This process should throw off the existing statute regulating the practice of medicine in this State which was revised seventeen years ago.

It does not grant to the private citizen his inalienable rights, which are life (first) liberty; health, reputation, and the pursuit of happiness, because the average quack and imposter, who can practice medicine here, is ignorant and uneducated. The existing law has many defects, and its meaning is not plain.

Some of our lawyers are deluded and think that because *law* does not require graduation from a law school neither should *medicine* demand that a person should be a graduate.

Law in this country has to do with the *acts* of individuals; medicine has to do with the *health* of the individual, so that the analogy is not clear.

The howl of monopoly has often been raised when this subject has been advocated. These people confuse the words "corporation" and "monopoly." "A *corporation* is a body of persons connected together by law, either contemporaneously or in succession, and endowed with the capacity of acting for various purposes as a single man." "A *monopoly*, on the other hand, is a special privilege conferred on one or more persons to the absolute exclusion of others." (Webster). Corporations are not necessarily monopolies. The right to practice medicine is neither a corparation nor a monopoly, because any one may practice medicine if they can comply with a medical examination. New Hampshire is the only State in the Union without any medical law.

Our Enemies.—These are the vitopaths physico-medicists, Christian scientists, &c.

A Better Law.—Should be self-supporting because there is a deficiency now in the State treasury. The different medical boards should be composed of representatives of the different schools of medicine without discrimination.

How the Present Law Affects the Medical Department of the State University.—The number of matriculates at the last academic year was nearly two hundred. The number of applicants for graduation were not many, and the number of graduates were about half a dozen, because many do not find it always expedient to finish the course when they can practice medicine on a certificate.

How can we Obtain Relief?—The main trouble is lack of organization. The profession of the State are divided in their opinion as to what the law should be, and the lawyers think that if the doctors cannot agree on what they want themselves they do not deserve anything. We should agree on what we want, have the State Medical Association to sanction it, and demand of each representative that they shall vote for it before their election.

There are five thousand physicians in Texas.

What Shall the Caption Be?—Some physicians have argued that we could not have a bill passed whose caption reads: "An Act to regulate the Practice of Medicine." It is granted without any argument whatever that the physicians cannot regulate the practice of medicine.

The *law* regulates the indiscriminate practice of medicine, while the physicians aid in enforcing it, and this custom should so continue.

Insomnia in Gastro Intestinal Disorders.

Sleeplessness is a condition frequently present in some disorders of the gastro-intestinal tract. Owing to the imperfect digestion these cases and the fermentative processes in the stomach and intestinal canal, certain toxic substances are formed which when absorbed and carried into the circulation irritate the nervous system and produce excitation and wakefulness. Of course, the rational treatment in this condition consists in the administration of evacuants and antiseptics, and of drugs which will regulate the disordered digestive process. The insomnia, however is often so prominent and troublesome a feature as to demand relief. In a recent editorial in the Daily Lancet attention is called to the fact that Sulfonal is particularly suitable as a hypnotic for those patients. A combination which is recommended as singularly efficacious in cases of so-called biliousness associated with restlessness or wakefulness is the following:—Sulfonal gr. 10, hydrarg. chlor. mit. gr. I., sacchar. alb. gr. 20, M et ft. chart No. 10, Sig. one every hour. The editor also recommends Sulfonal in fermentative diarrhœa due to the putrifaction of undigested food. The intestinal irritation existing in this condition is evidenced by the pressure of frequent liquid stools scanty and containing blood, and although the writer does not explain the modus operandi of sulfonal in these cases, it probably exerts its beneficial effects by allaying the irritation and by its seductive action upon the nervous system. The formula given is as follows:—Sulfonal, gr. 10, hydrarg. chlor. mit. gr. I, zinc sulphocarbolt gr. 15, sacchr. alb. gr. 20. M et ft. chart. No. 10 Sig. one every hour. Although the editor chanced upon the combination by accident, his results from their use during a period of more than a year, and in a large number of cases have been so eminently satisfactory as to lead him to cordially commend them for trial to the profession.

Intravenous Injections of Mercury in Syphilis.

Dinkler, of Berlin, has described nine cases of syphilis treated by this method, and concludes that it brings about a more certain and rapid cure than any other plan. The action of intravenous injections in the different stages of syphilis seems to contrast favorably with energetic inunctions and simultaneous local treatment; moreover, the tertiary manifestations were more modified by this treatment than were the secondary. The papulo-macular syphilides, psoriasis, large condylomata, ulcerations of the throat, as well as the initial scleroses, were remarkably improved by the end of the first week; the exanthemata faded, infiltrations subsided, and condylomata became more flattened and less hyperæmic. Ulcerations of the tonsils, pillars of the fauces and of any portion of the buccal cavity cicatrised, the primary lesion quickly cleared up, and the glandular swellings disappeared. As regards rapidity of improvement, intravenous injections compared favourably with inunctions. The result is not surprising when we take into consideration the fact that a far greater quantity of mercury is introduced into the blood than can be effected by other methods which depend on the absorption of the drug by the lymphatics; in the method under consideration, the drug has a specially powerful action on the vascular walls, which are extremely predisposed to syphilitic changes. It is a plan of treatment which cannot, however, be universally recommended, for the following reasons: In the first place. very few patients possess veins sufficiently large and superficial to render easy the introduction of the needle of the syringe; the injections produce thrombi, at first limited, but with a tendency eventually to occlude the vein completely; other circulatory disturbances may supervene, such as emboli and thromboses in distant veins; the disappearance of the symptoms is frequently only temporary, and in three cases grave sequelæ supervened after a few months; relapses occurred more frequently than after treatment by inunctions, and were explained by the very rapid elimination of mercury. It was a method which would not replace other forms of treatment, but was indicated in rapid cutaneous ulcerations and in grave cases of nerve syphilis; by reason of the rapidity of its action it might be employed as an introduction to anti syphilitic treatment, which might then be continued by inunctions, or in desperate cases by the two combined.

The Action of Erysipelas on Syphilis.

Rudolph (Clinic) relates two cases with syphilitic manifestations in which an accidental erysipelas occurred: (1) A man, aged 52, had two syphilitic ulcers on the face. The erysipelas affected both sides of the face. Five days after the defervescence and nine days after the onset of the erysipelas the ulcers were healed. (2) A woman, aged 25, contracted syphilis five years previously. She now had severe headache, and paresis

of the left side of the face, with occasional clonic spasm. In addition there were enlarged submaxillary glands and a chronic arthritis affecting both knees. Syphilitic cachexia was marked. She had been through several courses of antisyphilitic treatment, including mercurial injections and inunction. After an attack of erysipelas the patient was cured of her chronic syphilis. The glands went down, the pains in the head and joints disappeared, and the facial paralysis gradually recovered. For a year she remained free of any syphilitic manifestation, when a gumma appeared in the leg. The patient would not submit to further antisyphilitic treatment. The rapid and beneficial effect brought about by the erysipelas in these cases was striking. Unfortunately the first case was not seen again, and so it could not be stated whether he remained free of relapse. In the second case the cure was not permanent, but the erysipelas had more effect on the disease than the antisyphilitic treatment.

Problem of Work.

The current number of The Annals of Hygiene contains the last of a series of articles upon the Problem of Work, by Dr. E. C. Bailey, who presents the subject in an attractive, practical, and forcible manner. The writer begins by pointing out that man, considered as a producer of energy, differs from the steam engine in that he possesses a fund of reserve power that enables him to labor for a time upon insufficient food; while the motion of the man machine is entirely dependent upon the fuel simultaneously consumed. There has been a progressive decline in the vigor of the race—a steady depletion of the surplus—due to excesses on the part of former generations and the ever-increasing pressure of latter day business and social life. The average worker is more or less dyspeptic, and cannot long maintain his normal productive capacity upon the crudely prepared viands with which he is usually served, and premature breakdown is inevitable. The physical tendency of the race is unmistakably downward. The prime essentials of the work of regaining lost vigor are: First, modern apparatus and instruments of precision in the kitchen—the factor of chance should be entirely eliminated from cookery. Second, perfection of culinary methods—the prepared food should be digestible and palatable, and the bill of fare varied. Third, a scientific adaptation of the nourishment to the physical needs of each member of the family—the plan of providing for all what suits the requirements of a portion only will surely eventuate in disaster to the weaklings. The fallacy of the popular theory that the pristine vigor of the race is to be restored by a universal resort to highly concentrated, chemically pure forms of food, is clearly shown. and a strong plea made for the recognition of the dangers already threatening, and the adoption of a practical method of solving the problem of work.

Cystic Degeneration of Kidneys following Abortion.

On February 12th, 1896, at the Pathological Society of Manchester Dr. Arnold W. W. Leà showed specimens and microscopic sections from a case of cystic kidney in which acute nephritis had developed as a result of septic absorption following a miscarriage at three months. The patient was admitted to Queen Charlotte's Hospital under the care of Dr. Grigg. When seen she had a temperature of 104°, and was evidently suffering from septic poisoning. The uterus was emptied, its contents being very offensive. The temperature fell next day to 99°, and never rose again above 100°. The urine, however, was very scanty, containing blood and epithelial casts; urea rapidly diminished in amount, and finally the urine was almost totally suppressed. Distinct tumours were felt in each lumbar region, and considered to be enlarged kidneys. The patient died in ten days from uræmia. At the necropsy both kidneys were enlarged (left 13 ozs., right 10 ozs.). On the surface of the right kidney a few small cysts, and on the left a large number of cysts, were seen, most of them being about the size of a large pea, and containing clear yellow fluid. On section the cortex was much increased in thickness, the pyramids being atrophied; the capsules were adherent. Microscopically the kidneys showed chronic interstitial change, the renal tissues being compressed by cysts; glomeruli were scanty in number. An acute parenchymatous and interstitial nephritis had supervened. There were numerous capillary hæmorrhages. In some sections the kidneys were distinctly fœtal in type; fibrous septa passed in from the capsule, and numerous imperfectly-formed glomeruli were seen between the cysts. An abscess, probably recent, was found in the left ovary, and a fresh adhesion of a coil of intestine to the fundus uteri; no peritonitis. The case was evidently one of chronic cystic degeneration of the kidneys of adults, congenital in its origin. There was no history of any renal symptoms before this attack, and the patient might probably have lived many years had not acute nephritis, no doubt of septic origin, developed.

Bacillus of Chancroid.

Colombini has been working on this subject, and publishes his results in a pamphlet. He finds that the bacillus of Ducrey and the streptobacillus of Unna are one and the same organism, characterised by being found in chains, by staining chiefly at the ends and not in the centre, by being decolorised by Gram's or Kuhne's method, by the difficulty of obtaining pure culture since a suitable nutritive medium could not be found, and by the rounded ends of the individual bacilli. The best staining agent was methylene blue. Inoculation into animals was uniformly negative. The bacillus is rarely found in bubonic pus.

The Effects of Tobacco on the Eyesight.

The bad effect of tobacco on the eyes was unknown, even by physicians, until within the present century. Sixty years ago Dr. McKenzie, of Glasgow, wrote: "I have already had occasion repeatedly to hint my suspicion that tobacco is a frequent cause of amaurosis"—complete or partial blindness. To one form of this disease Hutchison gave the name "tobacco amaurosis," because he often found it in men strongly addicted to the use of tobaceo. Dr. Williams, the celebrated oculist of Boston, says: "To be of service, treatment in tobacco amaurosis must be begun in the early stage, before the congestion has been succeeded by atrophy." Dr. Francis Dowling, of Cincinnati, within the last few years tested the eyes of one hundred and fifty employes in the principal tobacco factories in that city. Only one woman was found to be suffering from the disease, and she had never used tobacco. This showed that merely working in the factory had very little effect on the sight, though it did affect unfavorably the general system.

Of the men examined, forty-five showed more or less evidence of amaurosis, thirty of them being pretty well marked cases. They all mistook red for brown or black, and green for light blue or orange, and in all there was also a contraction of both pupils. Thirty out of the forty-five complained of a gradual failure of vision. In one case—not amongst the employes just spoken of—the contraction of the pupil was so great that the sufferer was unable to go about without assistance. He had smoked from twenty to thirty cigars a day. He renounced tobacco, and his sight was fully restored in three and a half months. Chewing has been found to be much worse than smoking, as more of the poison is absorbed. The ophthalmoscope shows, in the early stage of the disease, a congested condition of the optic disc and the retina. The pressure thence resulting at length causes a gradual atrophy of the disc, and eventually of more or less of the retina, according to the duration of the disease and the amount of the infection.

A Hard Case.

Le Scalpel, a very ably edited Belgian medical journal now in its forty-ninth year, relates the following case as a warning to surgeons against *trop de zele*. A practitioner of Brussels had a patient who was suffering from a uterine affection. A specialist having been consulted curettage was recommended, and agreed to by the woman and her husband. She accordingly entered an institution in order to undergo the operation, but while it was in progress the surgeon became aware, after dilatation of the cervix uteri, that he had to do with carcinoma. The patient being under the influence of an anæsthetic and the husband absent their consent could not be obtained; but the operator nevertheless decided

to perform hysterectomy on his own responsibility. All at first went well, but unfortunately the woman died subsequently from hemorrhage, whereupon the husband sued the practitioner, claiming damages to the extent of 50,000 francs for the loss of his wife. The Ministry of Justice came to the conclusion that 5000 francs would suffice; but at the time of writing judgement had not yet been pronounced. The case pointed to the inadvisability of performing such an operation as hysterectomy without the consent of the patient and her husband having been previously obtained. In the above case there is no reason why the operator, having ascertained the nature of the disease after dilatation of the cervix, should not have waited a few days before proceeding to remove the uterus.—*Lancet.*

May the above be a warning to all surgeons who have great fascination for using the knife.

Pneumothorax in Typhoid from Straining.

Dr. White of London has reported two with this complication. (1) A young man, aged 19, had an ordinary attack of typhoid fever, followed by a very severe relapse. He was convalescing from this when on the forty-first day, while the bowels were being opened after an enema, he suddenly became collapsed, livid, bathed in perspiration, and almost pulseless. For some time previous to this he had all the physical signs of a little fluid at the left base, and as immediately after the attack of collapse it was found that he had all the signs of left pneumothorax, it was concluded that whilst straining at stool the pleura, weakened by inflammation, had ruptured. The chest was aspirated; 7 ounces of non-purulent fluid with flakes of lymph floating about in it were withdrawn. The patient improved somewhat, but died three days later. (2) A boy, aged 12, in the fifth week of his illness, after a severe attack of typhoid fever developed the general and local signs of a localised empyema at the right base. An exploring needle failed to withdraw pus, but the next day he coughed some up; as the temperature did not fall, arrangements were made for the empyema to be opened externally, but two hours before the time fixed for this, while his bowels were being opened, the boy suddenly became extremely collapsed and livid, and developed all the signs of right pneumothorax. He appeared almost dead, and was quite insensible, but oxygen inhalations seemed to keep him just going. The right chest was opened, where from the physical signs it appeared probable that fluid was present, and 12 ounces of foul pus escaped. After the operation he gradually regained consciousness, and was ultimately discharged from the hospital quite well. Here probably the localised empyema which had burst into the lung ruptured into the general pleural cavity during straining, and hence the pneumothorax.

Vital Actions.

The rate at which vital actions are performed is not uniform, but varies greatly in different cases and under different conditions. The influence of all our remedial measures adopted in departures from the healthy state is due to changes brought about in processes dependent upon vital actions. We are able to facilitate or retard vital actions in some cases and to modify, check, or stop them—to reduce them when too active and to increase them when proceeding too slowly. Some of our most certain and valuable remedies act upon certain forms of living matter in the organism, while on other forms they exert no influence, and it is remarkable that of certain substances which have a very decided action upon certain forms of living matter in the human subject an overdose becomes a poison, stops vital action altogether; and yet may have no action upon the corresponding living matter of some of the lower animals, and may even be taken with impunity or perhaps constitute a harmless food. In some cases by encouraging increased action in one or more kinds of living matter in certain tissues or organs we may reduce to its normal degree exaggerated action tending to derange, damage, or destroy some more important tissue or organ near to or distant from the seat of our treatment. The recognition of this principle enables us to be of service in the treatment of many forms of inflamation and fever, and even in certain forms of morbid growths.

Treatment of Gout.

At a meeting on February 7th, of the West London Medico-Chirurgical Society, Dr. Archibald Garrod read a paper on the Rationale of the Accepted Treatment of Gout. He drew attention to several fundamental points on which there were wide diversity of views, such as the importance of the part played by uric acid in the phenomena of gout, the causation of the accumulation of urate in the blood by excessive production or diminished elimination, the place of origin of uric acid in the body, and the substance or substances from which it was formed. The aims of treatment, as far as uric acid was concerned, were pointed out, and the therapeutic methods generally resorted to were mentioned. The conclusion was drawn that we were not at present in possession of such knowledge of the pathology of the disease as would be required to enable us to formulate a scientific course of treatment. On the other hand, the belief was expressed that the treatment usually adopted, although largely empirical in its origin, was capable of giving great relief, and that the results were decidedly satisfactory.

The South African Press advertises that there is a good opening for a sober, steady and handsome bachelor doctor in one of the Transvaal towns. Send photo.

Liver Complaint.

Dr. M. L. Holbrook, in his work on liver complaint, says that not every case of derangement of the liver shows its effect in the mouth; for the tongue may, in spite of the liver, present in the morning a clean, or nearly clean surface, and the mouth taste comparatively sweet; but this is not generally the case. In the majority of instances, the tongue will be coated in the morning of a whitish or yellowish white or brown colour. Sometimes the tongue presents a flabby appearance, or looks enlarged, and the teeth easily make indentations in it that do not at once disappear. Sometimes the papillæ on the margin of the tongue becomes more or less congested, enlarge, and looks red and angry. The disagreeable bitter taste in the mouth in the morning may generally be traced to the derangements of the liver. In what way this comes about is not quite clear; but there is one constituent of the bile, taurocholic acid, that is very bitter, and may be the cause of that most disagreeable taste that nearly every person can better understand than describe. In a perfectly healthy person the mouth taste sweet and feels clean in the morning, and this should be the ideal standard that all ought to try to maintain. Who knows how much of the lying and false swearing, the loose, impulsive language and foolish talk, may come from a mouth polluted by a deranged liver?

Headache.

In the "Practitioner," Lauder Brunton writes an interesting article on headache, in the course of which he points out that the one very common form of headache commences in this way:—The patient sometimes feels a little unwonted irritability at night, but this irritability is not always present. It is very often the precursor of a headache. He wakes in the morning about four, five, or six with a feeling of weight in the head, but not a hhadache. He is very drowsy, disinclined to rise, and is apt to turn over and go to sleep again at once. If he does this he awakes again about seven or eight with a distinct but not a severe headache, usually frontal or temporal. As the day goes on, the headache becomes worse and worse, until in the afternoon or evening it becomes almost unbearable. then finishes up with sickness, after which the patient becomes easier, but feels much exhausted. A headache of this sort may frequently be prevented by the patient taking a mixture of bromide of potassium and salicylate of sodium overnight, or by getting up and taking it when he awakes with a heaviness in the early morning, instead of turning over and going to sleep again.

There is only one real failure in life possible; and that is not to be true to the best one knows.

The Therapeutic Value of Benzosol.

Read before the New York Medico-Surgical Society Dec., 1895.

By J. Blake White, M. D., Late Visitihg Physician to City Hospital, New York.

The remedy which will constitute the subject of the brief paper I have the privilege to present before you this evening is a product of the laboratory of Dr. Bongartz, and is a combination of the ethereal slat of guaiacol and benzoic acid, hence the benzoate of guaiacol. Under the name of Benzosol it is prepared by Lucius & Bruning, Hoechst-on-Main, Germany. The chemical formula is represented by $c_6\ H_4\ (O\ C\ H_3)\ C\ O\ O\ C_6\ H_5$, and is said to contain about fifty-four per cent. of the active constituent of beechwood creosote, from which, through the process of manufacture, is removed all extraneous substances, leaving a colorless, crystalline powder, with no taste or odor, soluble in hot alcohol, ether, or chloroform, but insoluble in water, and liable to melt at 50° C.

When administered by the mouth, it is not dissolved by the juices of the stomach, but the guaiacol is liberated in the intestinal canal by its more alkaline secretions, and is subsequently excreted by the kidneys with the benzoic acid. If it is desired that the remedy exert its action high up in the digestive tract, its more rapid absorption may be obtained by giving it in combination with the alkaline waters.

The great advantages of Benzosolare its comparative freedom from odor or taste, which permit of its very general use in much larger doses where guaiacol or creosote are indicated, and its readiness of assimilation is evidenced by its detection in the saliva and urine within a half hour after it is taken.

Digestive disturbance very rarely occur during its administration, but if there is any it is only when the remedy is pushed beyond a drachm a day.

Prescribed in a variety of conditions, no ill effects have been observed, but the limit of dose mentioned has not been exceeded, while very beneficial effects in some instances have been realized from much more moderate doses continued for a reasonable length of time.

The most agreeable form of prescribing Benzosol is that recommended by Walzer, in chocolate pastilles, with the addition of a little oil or spirit of peppermint, which he considers especially suitable for children or patients of fastidious taste. The powder may be taken upon the tongue, followed by a mouthful of some carbonate water, or appropriate doses may be prepared in capsules, which is at once both a pleasant and convenient form for its administration.

In Phthisis.—Among the first to appreciate the value of Benzosol in phthsis was Dr. F. Walzer, who considered a valuable substitute for

creosote, which, in spite of its disagreeable taste and disturbing effect on the digestive organs, has always maintained its usefulness in these cases.

In tubercular diseases there is no function which the physician more carefully watches than that which relates to the processes of digestion and assimilation; hence the discovery of a remedy which possesses all of the desirable and beneficial qualities of guaiacol or creosote without the objectionable features which characterizes them must be accepted by the profession with much satisfaction.

All that Bouchard or Somerbrodt have said in favor of creosote in phthisis may be equally claimed for Benzosol, with the super-added advantage, however, of being tasteless, odorless, and not apt to cause disagreeable eructations, so often complained of by those taking the former, and are consequences which so often render persistence with creosote or guaiacol quite impossible.

Dr. Walzer asserts that the results in phthisis with Benzosol are at least equal, if not superior, to those obtained from the use of Creosote, and with the writer its use has been decidedly more satisfactory, inasmuch as the same general and specific effects may be expected without the consequent annoyances attributable to creosote or its more agreeable substitute, guaiacol.

The cases under the observation of the waiter which appears to be most benefited by the Benzosolare those which manifest a marked catarrhal condition of the lungs in the early stage of phthisis, or such as are well advanced with formation of cavities and excessive expectoration. These latter cases have, in some instances, tolerated surgical measures and improved under treatment by intracavernous medication.

In the early stage of the hemmorrhagic type of Phthisis, Benzosol has proved espeically valuable, and the writer is quite confident that if administered in masterful doses the remedy may be expected to exercise a marked controlling effect on the hæmoptysis, probably by a direct styptic effect through the circulation as well as in the abbreviation of the violent fits of coughing which constitute such a distressing symptoms, and not infrequently precipitate hemorrhage. The effectiveness of the remedy as an anti-hemorrhagic is enhanced when combined with ergotole and strychnia.

Gastric and Intestinal Dyspepsia.—In all forms of gastric and intestinal diseases no internal antiseptic has given the writer more gratifying results than Benzosol. Especial advantage is obtained in fermentative disturbances of the intestinal tract due to delayed or imperfect assimilation, since it is not usually decomposed till acted upon by the alkaline secretions of this region. Walzer furnishes an admirable working formula for detecting the compound in the saliva and urine within thirty to sixty minutes after it is administered. The urine or saliva, having

been distilled with dilute sulphuric acid, a portion of the clear distillate is placed in a test-tube, already emitting the odor of guaiacol, and a small amount of a very dilute solution of perchloride of iron added, when a reddish-brown color is developed, intensifying in proportion to the amount of guaiacol present. The benzoic acid is excreted by the kidneys partly unchanged and partly as hippuric acid.

Diabetes.—Not the least important is the effect of Benzosolin diabetes, in which affection, as in those mentioned, the benefit appeared to to depend not through any speciffc influence on the organism as an adjuster of function. Whether the action is achieved through correction of condition which encourage erratic function or by a stimulation of the nutritive nerve centres cannot at present be determined, Some authorities, among them Marfuri, hold that the nervous system first appreciates the presence of the remedy. In three interesting papers upon the value of Benzosol in the treatment of diabetes by Piatkowski, the statement is made that "it is easier to build up theories than to justify them," so no attempt is made to explain the mode of action upon the economy, though it is shown that decided beneficial effects were realized.

The experience of the writer with Benzosol in diabetes has been corroborative of that of Piatkowski and others, and tends to justify every claim advanced for its value in this affection. The quality and quantity of the urine is distinctly favorably affected. In some instances the sugar has entirely disappeared from the urine within a few weeks under the treatment, and though the best results are to be looked for when the patient's diet is attended to, the same beneficial effects have followed the use of benzosol alone without restriction of the diet.

Not only are evidences of good to be noted in the change of the condition of the urine, but the general health also responds under its favorable influence, as shown by increased appetite, facilitation of the processes of digestion and assimilation with the resulting improvement in nutrition.

Finally, while the writer, after an impartial trial of this new preparation in the affections mentioned, has deemed the results of his experience of sufficient importance to place them before this enlightened body of physicians, he does not wish to be understood as claiming more than a reasonable therapeutic value for it, but he feels assured, after an extensive and careful observation, that benzosol merits a high rank among the therapeutic resources of modern times.

1013 Madison Avenue. *Richmond Journal of Practice, Jan. 1886.*

In cases of in-growing toe-nail an attempt should first be made to save the nail. Remove all of the redundant, hypertrophied, and granular tissues of the skin, apply nitrate of silver freely to the exposed surface and leave the nail alone.

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Ar. Lumberton	5 26 "	.....
" Maxton	6 12 "	.....
" Laurinburg	6 25 "	.....
" Hamlet	6 55 "	.....
Lv. Hamlet	7 15 "	*8 08 a. m.
Ar. Rockingham	7 26 "	8 18 "
" Wadesboro	8 01 "	8 49 "
" Monroe	8 55 "	9 35 "
" Charlotte	10 00 "	10 45 "
" Mt. Holly	.....	11 09 "
" Lincolnton	.....	12 05 p. m.
" Shelby	.....	1 00 "
Ar. Rutherfordton	.....	2 10 "

EASTWARD.	No. 38.	No. 402.
Lv. Rutherfordton	.....	*4 35 p. m.
" Shelley	.....	5 58 "
" Lincolnton	.....	6 55 "
" Mt. Holly	.....	7 45 "
" Charlotte	*5 20 a. m.	8 20 "
" Monroe	6 07 "	9 15 "
" Wadesboro	7 05 "	9 54 "
" Rockingham	7 40 "	10 25 "
Ar. Hamlet	7 55 "	10 34 p. m.
Lv. Hamlet	8 45 "	.....
" Laurinburg	9 14 "	.....
" Maxton	9 29 "	.....
" Lumberton	10 20 "	.....
Ar. Wilmington	12 30 p. m.	.....

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†7 20 p. m.	Lv.	Hamlet	Ar. 7 55 p. m.
8 40 p. m.	Ar.	Cheraw	Lv. †6 35 p. m.

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No. 38.	No. 402.				No. 403.	No. 41.
*8 15 a. m.	*10 34 p. m.	Lv.	Hamlet	Ar.	8 08 a. m.	6 55 p. m.
9 12 "	11 21 "	Ar.	Southern Pines	Lv.	7 23 "	5 49 "
11 31 "	1 26 a. m.	"	Raleigh	"	5 35 "	3 40 "
1 20 p. m.	2 33 "	"	Henderson	"	4 22 "	1 59 "
3 00 "	4 05 "	"	Weldon	"	3 00 "	11 55 a. m.
5 50 "	7 30 "	"	Portsmouth	"	12 01 night	9 15 "
6 00 "	*7 50 "	"	Norfolk	"	*11 30 p. m.	9 00 "
*7 10 p. m.	†8 40 a. m.	Ar.	Old Point Comfort	Lv.	†7 05 p. m.	*8 00 a. m.
*5 43 p. m.	*6 02 a. m.	Ar.	Petersburg	Lv.	1 10 a. m.	9 50 a. m.
6 40 "	6 40 "	"	Richmond	"	12 36 "	9 05 "
11 10 "	10 45 "	"	Washington	"	8 40 p. m.	4 30 "
12 48 night	12 00 noon	"	Baltimore	"	7 31 "	2 55 "
3 45 a. m.	2 20 p. m.	"	Philadelphia	"	5 15 "	12 05 night
6 53 a. m.	4 53 p. m.	Ar.	New York	Lv.	*3 20 p. m.	*9 00 p. m.
No. 41.	No. 403.		SOUTH AND SOUTHWEST.		No. 402.	No. 38.
*9 00 p. m.	*9 55 a. m.	Lv.	Monroe	Ar.	8 55 p. m.	6 00 a. m.
10 20 "	11 02 "	"	Chester	Lv.	7 33 "	4 30 "
11 50 "	12 15 p. m.	"	Clinton	"	6 08 "	2 59 "
12 43 a. m.	12 57 "	"	Greenwood	"	5 23 "	2 02 "
1 20 "	1 24 "	"	Abbeville	"	4 55 "	1 30 "
2 25 "	2 11 "	"	Elberton	"	4 01 "	12 15 a. m.
3 35 "	3 07 "	"	Athens	"	3 07 "	11 11 p. m.
5 20 a. m.	4 09 p. m.	Ar.	Atlanta	"	*12 00 noon	*7 45 p. m.

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Disease of Pelvic Organs.

Dr. C. A. Kerkley, in the Fort Wayne Medical Magazine, writes: Not many years ago pelvic cellulitis was held accountable for almost all the pelvic ills of woman. Experience has shown that it seldom, if ever, exists; but that disease of the tubes and ovaries play the important role. No symptom within the pelvis should be lightly considered, yet how often women are assured that their vaso motor disturbances and that their menorrhagias are due to the climacteric. This too often without even an examination. The experience of almost every one familiar with the subject will confirm the fact that a healthy woman will have little or no trouble at the climacteric. While the vaso-motor system might be disturbed from the mere suppression of the menses, hemorrhage at the climacteric means either the existence of cancer, myoma, sarcoma, polypi, or fungous, or papillary vegetations, yet serious and often fatal consequences have resulted from these symptoms, through the traditional belief that they were due to the "change of life."

Suicides in Germany.

Some very interesting statistics have recently been collected in Germany bearing upon the question of suicides. These statistics, which have been prepared by the various States of the Empire and published in Berlin, show the number of suicides which have been committed in Germany during the thirteen years from 1881 to 1893 inclusive. According to this return; the number of suicides for that period was 105,327, the totals ranging from 8987 in 1881 to 10,699 in 1893, and the rate per head of the population varied very much, being as high as 46 per 100,000 inhabitants in the Duchy of Saxe-Altenburg and falling as low as 13 and 11½ per 100,000 inhabitants in Bavaria and Alsace-Lorraine. The suicides are proportionately more numerous in the Prussian army than in any part of the Empire, having been 65 per 100,000 in 1895.

Obstetrical Superstitions.

Dr. Thos. L. Bullock writing in The Ameriean Practitioner and News, says:

When the child is born and the doctor is preparing to cut the cord he is sometimes interrupted and told he must cut the cord longer, as the length of the penis at maturity depends on the length the cord is cut. I have never been able to verifg or refute this idea, as the oldest male I have ever deliveree is only thirteen. I may make a continued report on the subject, or perhaps some of the older members of the Society can enlighten us. Old nurses insist on burning the afterbirth to avoid the occurrence of after-pains. To facilitate the passage of the placenta the patient is told to blow into a bottle or her closed hands or to take snuff.

Etiology of General Paralysis.

Hirschl (London Lancet) analyses 200 cases of general paralysis occuring during ten months in Krafft-Ebing's clinic. Only men are treated of, as a syphilitic history is difficult to obtain in women. Hereditary influences were traceable in only 11 per cent. The majority of the patients were in the lower walks of life, and in no instance was the disease definitely attributable to psychical causes. Physical fatigue and insolation were not regarded as causal antecedents, but Hirschl admits the possibility of trauma as an exciting cause in patients already infected with syphilis and states that this may occur in about 1 per cent. of cases. He denies any connection between saturnine encephalopathy and general paralysis. He maintains that far the most important etiological factor in the latter disease is syphilis. The pre-existence of this he considers proved in 56 per cent. and probable in 25 per cent of the 175 cases in which a history was obtainable; the incubation period varied from two to twenty-nine years. He holds that general paralysis is due to syphilis and syphilis alone, and that the 19 per cent. of cases in which there was no indication of this disease in the history had probably suffered from it unknowingly. He supports Obersteiner's view of the analogy of general paralysis with syphilitic perihepatitis; both begin as inflammatory changes followed successively by disappearances of the parenchyma, interstitial changes, and eventually atrophy of the cortex or liver respectively. Hirchl thinks general paralysis is really a late form of syphilis, beginning as syphilitic encephalitis, and going on to syphilitic cerebral atrophy. He maintains that this theory explains all the symptoms, is unaffected by the resistance of the disease to anti-syphilitic remedies, and is supported by the fact that general paralysis and syphilis spread *pari passu*, His view as to the pathology of the cerebral process is based on Lang's dictum that any organ in which a gumma develops must have suffered from irritation in the early stage of syphilis. The contagion residuum in the brain of general paralytics is propagated with renewed vigour, owing to the natural hyperæmia of the organ during functional activity to functional hyperæmia from various psychical and mental causes, or to the occurrence of apparently slight traumatic influences.

Asthma.

In a paper read before the Allegany County Medical Society in Cumberland, Md., recently, on Asthma, Dr. Et. T. Duke said that much difference of opinion existed amongst the best medical men regarding the causation of Asthma, and its treatment was too often empyrical. He urged a more careful study of each case, especially with reference to its true ætiology. Dyspnœa as a symptom of other affections was frequently mistaken for an asthmatic paroxysm, thereby causing improper treatment.

Bronchial Asthma was the only true form of the disease, the so-called cardiac and renal varieties were not Asthma, but affections of the heart and kidneys, associated with the bronchial trouble. That a neurotic element was present in a large number of cases, and bronchitis and emphysema were frequent complications. The form most amenable to treatment was that in which bronchitis was associated, and in these cases the iodides had proved the most serviceable remedies in preventing recurrences.

In treatment of the paroxysm hypodermic injections of morphia and atropia was the most satisfactory remedy.

Strychnia, lobelia, atropia, and like drugs, had been used with benefit in the treatment of Asthma during the interval of recurrence of paroxysms, but the iodides had, after repeated trials, proved the best.

He advanced the idea that it might be that the octahedral crystals described by Leyden, a form of mucines found in the "spirals" in the bronchial tubes, and believed by some to act as an irritant, causing the paroxysms, might be the true cause of the so-called idiopathic variety of the affection. As these crystals are soluble in alkaline solution, he believed the benefit obtained from an alkaline treatment to be due in part at least to the above named fact.

The Hygiene of the Face.

To a very large proportion of the human race in civilized countries the face is, under the designation of "the complexion," the subject of considerable and painstaking interest. Even those most exempt from vanity would prefer to have a physiognomy not readily identifiable by a more or less symmetrical crop of pimples; and a congested nose is not regarded as a thing of beauty, even in an omnibus driver. Yet, in spite of this general feeling in favor of a normal complexion, ignorance and carelessness between them wreak havoc, and it is the exception to meet with cheeks that have seen more than twenty summers which do not betray traces of ill-treatment. Apart from indigestion and constipation—two potent factors in the ruin of a naturally healthy complexion—there are a variety of forms of mismanagement which conduce to blotchiness and pimply deformities. Among them must be ranked the practice of washing the face with hot water, a widespread form of self-indulgence in cold weather. The hot water, especially when reinforced by a course of unduly alkaline soap, removes an unduly large proportion of the natural fat of the skin, leaving it with a roughened surface, which is very liable to excoriate or "chap," and requires more frequent washing to keep it clean, owing to its catching the dust. Nothing probably does so much to age the skin as the frequently repeated ablutions with hot water, and this may explain why the dainty Frenchwoman prefers to smear off the grime with the corner of a handkerchief steeped in glycerine, knowing by experience that good, honest soap and water is, in the long run, detrimental to the preservation of a healthy skin.

The Dangers of Cocaine.

The increased use of cocaine as a local anæsthetic has brought into greater prominence the disagreeable and sometimes alarming effects produced by this drug. Dr. de Havilland Hall states (Edenburgh Medical Journal) that he always combines his cocaine with a 10 per cent. solution of resorcin. This, he finds, diminishes the toxic effect of the cocaine, while at the same time it increases its anæsthetic action. He disapproves of the use of the spray for applying cocaine to the nose, and prefers to apply a definite quantity by means of cotton wool and a suitable holder to the desired part. To combat any bad effects from the cocaine, he always has at hand ammonia and nitrate of amyl, but since he has used the combination with resorcin he has but rarely seen even slight toxic effects produced.

In an article on "The treatment of hyperpyrexia in children, with some illustrative cases" published in the Medical Record, February 22nd, 1896, Dr. Louis Fischer, Associate Professor of Pediatrics, New York School of Clinical Medicine; Attending Physician, Messiah Home Children and Children's Department, German Poliklinik, sums up his experience with Apolysin and formulates the following rule: We may begin to give a child of one year five grains of Apolysin, to be repeated every two or three hours, the intervals depending on the urgency for reduction of hyperpyrexia. If there is no distinct effect noticeable from the five-grain dose after three doses, it is perfectly safe to give doses of ten grains each every two hours until the fever has been reduced.

I have also frequently combined Apolysin with calomel, and lately have combined it with the compound powder of jalap in the following manner:

℞ Apolysin ..... gr. lx.
Calomel ..... gr. vi.
Sacch. alb. ..... gr. lx.
M. ft. chart. No. xij. Sig. One powder every two hours for a child one year old.

Apolysin is applicable for the reduction of high temperatures in any and all affections in which antipyretics are required.

My best results were obtained by giving the powders before meals, although some authors advise giving them after meals.

To children five grains for the first year and one grain more for each addition year may be given with some sugar every two hours or even hourly until fever has been reduced sufficiently to satisfy the physician of the removal of the liability to convulsions,

With some children it is preferable to give Apolysin per rectum, owing to the difficulties of giving them medicines. In giving drugs per rectum I follow the usual rule of doubling the dose per mouth, and give

a child one year old ten grains of Apolysin in a suppository, as may be required. When using rectal medication I invariably advise the precaution of a cleansing enema of one pint of glycerin-soap water, or castile-soap water injected quite high in the rectum or into the colon.

Not one single case showed disagreeable effects from this drug, and it was very well tolerated by weak stomachs, such, for example, as those of children who have been brought up on almost a starvation diet, with bad hygienic surroundings, with alcoholic parents, and in some instances in our ordinary tenement houses.

In all thirty-eight cases were experiments with, eight of which I here report. Several are still under treatment and observation. One highly instructive case of double lobar pneumonia occurring in the child of a physician I am not at liberty to report. The one point which was noted in the latter case was the ease with which fever could be reduced, without even the pulse showing any alteration in frequeucy or rhythm, and without reaction directly attributable to the drug.

In not one single instance did I notice a subnormal temperature. Copious perspiration was frequently found when large doses of Apolysin had been taken.

In several cases, notably one, children took ten grains every hour for twelve hours or one hundred and twenty grains in all, I took especial pains to notice that not a single eruption ever followed large doses of Apolysin.

℞ Apolysin,
Sacch. alb.....aa gr. lx.
Pulv. jalap. comp .....gr. xxx.
M. ft. chart. No. xij. Sig. One powder every two hours.

For ordinary catarrhal gastritis attended with high fever and with sluggishness of the bowels, I have found that these powders reduced the temperature. besides stimulating peristalsis, and evacuated the infected material from the stomach and bowel.

What I have previously said, however, in regard to washing the stomach by gentle irrigation and flushing the bowel after reducing the temperature, should be well borne in mind.

That this drug can be given with impunity before or after meals I have frequently tested, but it seems to me that the best results were obtained by giving the drug before meals.

Apolysin can be combined with sodium bicarbonate by giving equal doses of each, and the most convenient plan for giving it has been in the form of tablets containing seven and one-half grains of Apolysin and two grains of sodium bicarbonate.

I do not, however, for a moment undervalue the great importance of dietetic treatment in the diseases of children, yet it must be borne in mind that frequently symptomatic treatment has to be instituted when the causes

are unknown and the reduction of a high temperature by a drug that is not a cardiac depressant is one of the greatest boons to mankind.

I would repeat the statement made in the beginning of my paper, that in using this drug I have discarded all antipyretics, because I have never seen the reduction of temperature accomplished by any one of them without the system suffering from a general depression caused by weakening of the heart and subsequent derangements.

It is plain from what I have reported in the treatment of a severe form of acute articular rheumatism that Apolysin can hold its own in the treatment of acute specific diseases in which quinine and antipyrin have been so often given, without, however, making the body suffer from the consequent heart depression.

It is therefore one of the most valued additions to the materia medica in the treatment of that most dreaded disease, "la grippe."

In infancy it will prove one of the most valuable drugs if given in large doses, and herein lies its safety, because, owing to its chemical constitution it has no cumulative effect, as has digitalis for example.

In a case reported by me in this paper I gave 360 grains of Apolysin without having the patient suffer any depressed feeling; on the contrary, the more he took of the drug, the brighter and better he felt.

I do not wish to close this paper without giving my good old friend cold water its proper place in the materia medica, as an additional factor in reducing temperatures, and while I am extremely enthusiastic concerning the brilliant result obtained by me in the treatment of fevers with Apolysin, there are instances when a cold bath in addition to the use of Apolysin will aid this new drug in the performance of its noble duty.

Who ?

Who does more good in the world than they who relieve suffering humanity ? I have used Sanmetto in many cases where it was indicated, such as enlarged prostate of old men, and in cystitis and gonorrhœa. I truly believe that I have carefully tested every remedy in the pharmacopœa for these distressing and painful affections of humanity, and none gives relief like Sanmetto. In one case where solid casts from the urethra (resembling chicken guts), where micturition was so frequent as every ten or fifteen minutes night and day, and where the catheter would not pass into the bladder, Sanmetto brought relief. I consider it the great reliever of these affections.

Webster, W. Va. C. N. Brown,

A surgeon lately practicing in Bristol, England, was called to the door by a ring, but instead of the expected patient found a collector for overdue rent. This so discouraged him that he killed himself.

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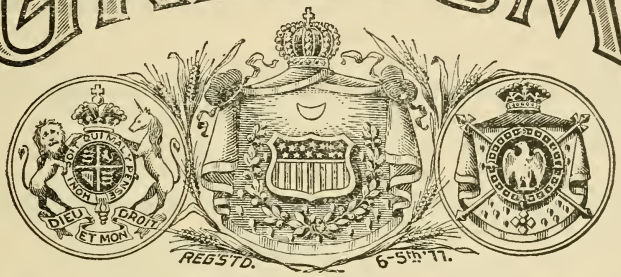

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We have used it successfully with children from birth.—The Post Graduate Journal, New York.

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IMPERIAL GRANUM is acceptable to the palate and also to the most delicate stomach at all periods of life.—Annual of the Universal Medical Sciences, Philadelphia, Penna.

A valuable aid in the treatment of the graver forms of gastric diseases.—The Prescription.

★ 'Physician's-samples' sent free, post-paid, to any physician—or as he may direct. ★

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A Case of Surgical Injury to the Ureter.

Dr. J. M. Baldy reports (American Journal of Obstetrics, March 1896,) the case of a patient upon whom he performed an abdominal section for a chronic pyosalpinx on the left and an intra-ligamentory cyst of the ovary on the right side of the pelvis. During the course of the eneucleation the left cyst ureter was torn, the bladder end being lost in the mass of broad-ligament exudate.

The kidney end and the upper most movable part of the bladder were approximated for the purpose of seeing whether or not they could be made to meet. This was found possible, but resulted in considerable traction on the ureter, too much for safety.

The ureter, an eighth of an inch from its end, was perforated by a double suture at two points, both ends of the catgut protruding from its open end. The bladder having been incised to the extent of an inch at the point which was most easily brought into contact with the ureter, the two ends of the catgut suture were successively carried into the bladder, and an eighth of an inch from the incision was made to penetrate the bladder walls and protrude from its peritoneal side. The two ends were then tied, thus drawing the ureter into the bladder and there fixing it. Two such sutures were placed for the sake of additional security. The mucous membrane of the bladder was united by a continuous catgut suture, then the connective tissue and finally the peritoneum by a separate continuous catgut suture. Care was taken to pass each suture through the outer coat of the ureter as it passed by it, for the sake of the more accurately closing the wound about the ureter and for the additional reason of the more certainly securing the ureter from being pulled from its position. In order to relieve all tension on the ureter which was considerable at this time, two stout catgut stitches were made to fix the bladder securely to the pelvic wall at the point of the stump of the ovarian artery.

Peritoneum was brought together over all denuded parts of the pelvis possible, a glass drainage tube was placed and the abdomen closed.

The patient made an uninterrupted recovery.

Just prior to her departure a cystoscopic examination of the bladder was made. The point where the bladder was dragged upon by the sutures showed plainly in the drawn up corrugated appearance at that point. The point where the ureter entered the mucous membrane was deeply injected, the surrounding area was normal. Urine was seen to flow normally from the ureteral opening, which protruded above the surrounding level of the mucous membrane. The patient at no time seemed to suffer from irritability of the bladder. A urinary examination was practically negative.

A bill has been introduced into the United States Senate to regulate the practice of medicine in the District of Columbia. A board for examination and license is provided for.

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A valuable Renal Alterative and Anti-Lithic agent of marked service in the treatment of Cystitis, Gout, Rheumatism, and diseases of the Uric Diathesis generally.

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Infection with Tubercle Through the Genital Organs.

Prof. Dobroklonsky, of St. Petersburg, has made inkestigations as to the possibility of occurrence of this infection. It is granted that primary tuberculosis of the genital organs beyond doubt exists in both sexes, and at all ages, though more commonly during the period of sexual activity, and in those parts which lie farthest from the body surface rather than those immediately exposed by contact during sexual intercourse. The questions Prof. Dobroklonsky enters upon are: the possibility of an *ascending* infection through the genital organs—whether semen will convey the infection—and whether it does so wherever tubercular disease may be present in the body, or only when the genital organs are diseased. Careful examination was made of twenty-five bodies after death from phthisis, to determine the state of the genital organs; the semen was examined and inoculated in guinea-pigs. Only in one instance was a tubercular lesion found (in the epididymis); this case gave the only positive result after inoculation with semen, and a bouillon culture from the semen produced general tuberculosis when introduced into the genital organs of a female animal. The conclusions deduced are: That the poison may enter by the genital tract in men as in women, and that this mode of entry is "probably of great importance;" that infection occurs only where tubercle exists locally in the genital organs; that as this is relatively uncommon, infection of this sort is correspondingly rare; that the local evidence of disease is often long unnoticed, and therefore the risk of infection increased.

A young woman living in Paris recently gave birth to a child, whose eyes were placed on the top of its head. The infant seems to be doing well, and crowds of people have tried to satisfy their curiosity by visiting the house.

The death rate in Denver, Col., the past year was 11.15 per 1,000.

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Wheeler's Compound Elixir of Phosphates and Calisaya. A nerve food and nutritive tonic forthe treatment of Consumption, Bronchitis, Scrofula and all forms of Nervous Debility. This elegant preparation combines in an agreeable Aromatic Cordial, acceptable to the most irritable conditions of the stomach: Say Bone Lime Phosphate, Soda Phosphate, Iron Phosphate, Phosphoric Acid, and the active principles of Calisaya and Wild Cherry.

The special indication of this combination of Phosphates in Spinal Affections, Caries, Necrosis, Ununited Fractures, Marasmus, Poorly Developed Children, Retarded Detention, Alcohol. Opium Tobacco Habits, Gestation and Lactation, to promote Development, etc., and as a physiological restorative in Sexual Debility, and all used-up conditions of the Nervous System, should receive the careful attention of good therapeutists.

NOTABLE PROPERTIES: As reliable in Dyspepsia as Quinine in Ague. Secures the larger percentage of benefit in Consumption and all Wasting Diseases, by determining the perfect digestion and assimilation of food. When using it, Cod Liver Oil may be taken without repugnance. It renders success possible in treating chronic diseases of women and children, who take it with pleasure for prolonged periods, a factor essential to maintain the good will of the patient. Being a Tissue Constructive, it is the best general utility compound for tonic restorative purposes we have, no mischievous effects resulting from exhibiting it in any possible morbid condition of the system.

DOSE:—For an adult, one tablespoonful three times a day, after eating; from seven to twelve years of age, one dessertspoonful; from two to seven, one teaspoonful; for infants, from five to twenty drops, according to age. Prepared at the Chemical Laboratory of

T. B. WHEELER, M. D., Montreal P. Q.

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Dose—One to two teaspoonfuls three or four times a day.

A VITALIZING AND DIFFUSIBLE STIMULANT AND TONIC,

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REPORTS OF CASES INVITED,

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Pressure Paralysis in Chloroform Narcosis.

Bruns (Edinborough Med. Journal) reports a case of musculo-spiral paralysis from pressure during chloroform narcosis. The operation (for uterine fibroid) lasted several hours, and the patient's arm was pressed against an iron bar. Paralysis of the right arm was noticed directly after the operation; eleven days later all the muscles supplied by the musculo-spiral nerve, except the triceps, were found to be paralysed; sensation was then normal. Seven weeks after the operation the paralysis remained, and there was slight alteration of electrical reactions, but four weeks later the muscles had recovered their normal power. Several similar cases have been reported, The paralysis is usually unilateral and generally right-sided, and effects especially the upper part of the brachial plexus, so that the deltoid, biceps, coraco-brachialis, supinator longus, and infraspinatus are paralysed; occasionally the lower part of the plexus is affected. In these cases the lesion is probably due to compression of the plexus between the clavicle and first rib, which occurs in certain positions of the arm, and is, therefore, commonest in laparotomies where the operator stands at the side, and the arm is pulled up to be out of his way.

The proposed memorial to the late Sir Andrew Clark has failed.

Posterior Catheterism.

Kukula (British Med Journal) reports five recent cases of very difficult urethral stricture successfully treated by Maydl, of Prague, by posterior or retrograde catheterism. In each of these cases, after failure in the course of an external urethrotomy to find the proximal or vescial end of the slit urethra, suprapubic cystotomy was practised, and a metal sound passed from the bladder at first as far as the seat of stricture, and, after excision of cicatricial or fibrous tissue, along the whole length of the canal. This having been replaced by a soft retention catheter, which in the course of the after-treatment was renewed every third or fourth day, the wound in the bladder was left to close by granulation. A table of 45 cases collected by the author from different sources shows that this method of treatment is indicated chiefly in cases of impermeable stricture of traumatic origin due either to fracture of the pelvis or to direct injury to the perineum. In 6 cases the operation was performed for the relief of retention caused by recent laceration of the urethra. The mortality which amounted to 10 per cent. in this series of cases; cannot be regarded as unfavourable to posterior catheterism in comparison with other methods, as the operation in the 4 fatal cases was performed on patients suffering either from severe injury to the pelvis or from cystitis with renal complications. The after-treatment in the cases of recovery lasted in about half the number from six weeks to two months. The average period in instances of impermeable traumatic stricture the author finds to be sixty-seven days.

The Bacteria of Catgut and Its Sterilization.

N. Zajacskowski has in various kinds of raw catgut found two micro-organisms. one identical with Brunner's catgut bacillus, the other of different appearance and properties, and named by Zajacskowski B catgut bacillus, as opposed to Brunner's *a* bacillus. B bacillus is of long slender rod shape, with rounded ends, very mobile, and giving culture results differing from those of the *a* bacillus. The research as to the resistance offered by these organisms to sterilizing methods is of interest; both are highly resistant to heat—dry or moist—and to antiseptic agents, and both were found to be of importance, as increasing by their presence the virulence of pyogenic organisms, though their inoculation or intravenous injection as a pure culture gave rise to no reaction. When injected with a dose of streptococci, which, used by itself, produced merely a local reaction, there followed death from septic poisoning in two or three days. An elaborate method for the sterilization of catgut is recommended to destroy the action of all organisms, viz.: 24 hours in oil of juniper, 12 hours in ether, 60 hours in hydrochloric acid (1-500), 2½ hours' exposure to a temperature of 150° C., and finally, 2¼ hours in boiling xylol.

An Electric Light Bath.

At the last annual meeting of the American Electro-Therapeutic Association Dr. Kellogg read a paper describing an incandescent electric light or radiant heat bath. The author claims to be the first to construct a bath of this kind. It is made in the form of a cabinet with fifty or sixty incandescent lamps arranged in rows inside, the spaces between the lamps being covered with glass mirrors. Other forms have been constructed for local application. It has already been demonstrated by Siemens and others that the electric light promotes growth in plants, encourages development of chlorophyll, and the setting and ripening of fruits. To determine more exactly its physiological properties upon human beings and its therapeutic value, Dr. Kellogg has conducted a series of experiments, the results of which he thinks justify the following conclusions :

(1) The incandescent electric light bath increases the production of carbon oxide, and hence stimulates tissue metabolism. The amount of increase in a bath of thirty minutes' duration was nearly 50 per cent. (2) The urea and total chlorides were somewhat diminished by the bath, owing to the greatly increased activity of the skin. (3) Vigorous perspiration was induced at a temperature below that of the body, 85 degs. F., and in half the time required to induce perspiration in a Turkish bath at 106 degs. F. The action of the electric light is entirely independent of the temperature of the surrounding air. (4) The incandescent electric light bath possesses many advantages over the Turkish, Russian, vapour, and hot-air baths, the chief of which are : The penetrative power of radiant heat, which is far superior to the convective heat of the baths mentioned ; the superior stimulating effect upon tissue metabolism ; the readiness with which perspiration may be induced when desirable, one to three minutes; the low temperature of the surrounding air, which permits the full effects of the bath ; the readiness and accuracy with which the dosage of the application may be regulated ; the wide range of application, which admits of the use of the bath for a tonic and sedative, as well as alterative and spoliative effects. (5) The incandescent electric light is said to be superior to the arc light for therapeutic purposes, for the reason that it may be more readily and evenly distributed, and is free from the injurious effects which have been shown to result from too close proximity to the arc light.

The Christian Scientist.

We quote the following from the second number of Pediatrics :— "Faith Healer's death certificate for a diphtheria victim. Mr. and Mrs. John Bennett's child died recently in Anderson, Ind. Dr. Welman, a Christian scientist, had been attending it. He made his death return yesterday. It was—'Died from sin and fear!' The authorities made an investigation, and found that the child had died of a mild attack of diphtheria, which might have been cured with medical attention. It was also found that the doctor and parents had relied on faith entirely, and the verdict also reads : 'Death from criminal neglect.' Warrants have been issued for the arrest of both the parents and the doctor." Our only comment upon this quotation is, that there seem to be as colossal fools in America as there are in England ; it is a pity that the "Christian scientist" is complimented with the title of "doctor."

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"MALTOSE constitutes the end product of the action of diastase, and amylolytic ferments generally, on starch and its congeners."
Physiology of the Carbohydrates, F. W. Pavy, M.D., LL.D., F.R.S.

MELLIN'S FOOD, prepared with FRESH COW'S MILK according to the directions, is a true LIEBIG'S FOOD, and the BEST SUBSTITUTE for Mother's Milk yet produced.

The Charlotte Medical Journal.

Vol. VIII. CHARLOTTE, N. C., APRIL, 1896. No. 4.

Retrospect of Disease as Witnessed by a Country Doctor.

By J. B. Alexander, M. D., Charlotte, N. C.

In 1845 North Mecklenburg was visited by an epidemic of Erysipelas of the most violent type. What was the cause, or why this peculiar variety should have fastened itself upon this community has never been understood. The first subject was Dr. M. W. Alexander, nine miles north of Charlotte. He succumbed in two or three days. He was but little disfigured; and being a popular man the whole neighborhood attended his funeral. From this date the disease spread rapidly. In every instance the disease was ushered in with a well marked chill, in fact a shaking ague, followed by high fever, sore throat, and eruption on some part of the body, which spread rapidly, frequently enveloping the entire body. The swelling was very great—to such an extent that many cases in a few hours were beyond recognition. To say that the head of some of the victims was swollen to the size of a half bushel measure, is no exaggeration. Many were not only blind, but deaf, and articulation rendered very indistinct. But few cases, if any, had the second chill; many cases died in 48 hours, choking to death from the swelling of the mucous membrane, of fauces and throat. The cellular tissue was deeply involved with the skin, as is always the case in the phlegmonous or deepseated variety. The disease was very fatal. The people were alarmed; it was difficult to get assistance to wait on the sick, or bury the dead. There were burials in Hopewell graveyard every day for several weeks, and on one occasion as many as six were interred in one day. Nearly every house had one or more cases. No age or sex was exempt, but it was not so fatal among children as adults, or those in middle life. Negroes were not so susceptible to the disease as the whites, but had no greater resisting power to its inroads, they died as promptly. In some cases the spreading of the inflammation was arrested by strips of blistering plaster applied around a limb or around the neck. I have but little knowledge of the treatment used.

In 1845, '46 and '47 Typhoid Fever was rife in the same section—whites and blacks suffered alike from its ravages. In some families every member was affected. Very few died in this (Hopewell) vicinity; but on the river, near Beattie's Foard, it was very fatal—Wm. Patterson lost a large number (I think sixteen) of his slaves in a few weeks. It baffled the skill of such eminent physicians as Doctors Johnston and McLean. In this immediate neighborhood it ran riot, paying but little heed to obstacles interposed by the physicians. In the Hopewell territory the fever was of a milder type, or Doctors D. T. Caldwell and Isaac Wilson were more fortunate in their mode of treatment. Their scope of practice covered nearly half the county. Dr. Caldwell lived in Charlotte, but during the

epidemic confined his practice exclusively to the infested district. They seldom saw a patient oftener than once in two days.

This country is high and rolling, the natural drainage is perfect, the water clear, sweet and good. At this time considerably more than half the land was in original forest. No reasonable cause could be assigned for the fever. The houses all had open fire-places—the majority were built of logs; only the well-to-do had ceiled rooms. Some negro cabins had dirt floors. The most affluent families suffered to as great an extent as those in the most humble circumstances. The disease truly had no respect to environments. The above is the recollections of my boyhood; and cannot go into particulars.

In 1853, '54 and '55, while studying medicine and begining the practice, I had opportunity to witness a wide spread epidemic of dysentery. For three consecutive seasons it raged with great violence: beginning in May and extending into October. Occurring in hot weather, the time when malaria gets in its most effective work, it was natural that physicians should attribute the cause to malarial poison. But those who based their treatment on the idea that the disease was due to this cause were peculiarly unfortunate. Dr. D. T. Caldwell (for whose medical attainments I had the most profound respect) not knowing the microbe theory, depended largely on the nitrate of silver as an alterative, hoping to heal the abrasions of the mucous membrane of the intestines. The probability is the little operatives—afterwards christened Bacteria—were as numerous and got in as viscious work forty years ago as they are accused of now, but had never been detected in their mischief. Yet his free use of the Silver Nitrate proved the salvation of hundreds of cases as an antiseptic, or microbe-killer. But few cases of dysentery were benefited by mercurial preparations, but the reverse was the rule; they aided much in hurrying on the closing scene. The Nitrate of Silver has always been a favorite remedy with me in all affections of mucous membranes. It appears to have a specific action in chronic cases, and should rank high in the list of curative agents. For the next five years there were many sporadic cases, but it never returned as an epidemic, From 1853 to 1855 not less than a thousand people died with Dysentery in Mecklenburg county.

In the summer and fall of 1858 we had a vast amount of Pernicious Malarial Fever; beginning with a chill, followed with high fever, and delirious almost from the start; urine the color of strong lye, and great congestion, soon falling into coma, from which many never awoke. Where the system responded to treatment, the patient would recover in from seven to ten days. During this fever wave I lost six cases in ten days, and was, probably not more unfortunate than my neighbors. At intervals of from eight to ten years this same form of fever would return; the last wave the disease was complicated with hæmorrhage from the bowels, the patient going into collapse—the forerunner of dissolution. I met with several cases that run to a fatal termination in less than three days. They were cases in which the system failed to appropriate any medicine given. They were cases that appeared doomed from the onset, in whieh no impression could be made, however skilfully applied.

The ordinary contagious diseases of childhood were not peculiar in their characteristics; when uncomplicated they present the same symptoms as forty years ago. Diphtheria was unknown in North Mecklenburg prior to 1860, and was never epidemic. Yet the disease was very com-

mon from 1872 to 1885. The medical profession have laid too much stress on local treatment, to the neglect of constitutional remedies. I have found the most satisfactory treatment to consist in arresting and preventing the formation or exudation of false membrane, known as diphtheritic deposit, by mercurializing the patient as quickly as possible, and at the same time preserving the strength with nutritives and alcoholic stimulants. It is astonishing what quantities of whiskey the little sufferers can tolerate. Death approaches either by closing the air passages, or heart failure. There is no acute disease, with which I am acquainted, that has so depressing effect on the heart's action, and none that is so tolerant of alcoholic stimulants.

In 1875 we were visited by an epidemic of Typhoid Pnuemonia, a very difficult disease to treat successfully. There is no disease that calls more loudly for trained nurses. The system appeared to have a vibrating condition, susceptible to change from the slightest cause of either heat or cold. The disease was emphatically a hybrid; unmistakably typhoid, and unmistakably pneumonia; it appeared to be a transposition, the lungs being involved instead of "Peyers' Patches." The inflammation was atonic, making it necessary to support the economy from the beginning. The basis of treatment that gave best results was the mild chloride of mercury, counter-irritants over lungs, a stimulating expectorant of carb. ammonia and squills for four to six days; then substitute nitrate silver, one-third gr., every six hours, alternating with spts. turpentine, 10 to 15 gtts, one or the other every three hours, and nutritious diet, with plenty of pure corn whiskey. These cases lasted from four to six weeks. Not a case occurred in the very poor—all were among the well-to-do families.

In 35 years' practice I never saw a case of Plurisy, and but six cases of Puerperal Peritonitis. One case, a primipara, was attacked with chill six days after delivery, at 8 o'clock A. M. I was called at 4 P. M., and found her in *articulo mortis*. All her symptoms indicated Pyæmia. Another case, (the first I ever saw,) on the third day of her attack, was taken with black vomit, soon became cold, pulseless, in a state of collapse. I sponged abdomen with spts. turpentine and covered it with fly blister plaster, and gave teaspoonful doses of tinc. camphor and spts. turpentine each, every hour. To my amazement it acted like magic. I never met a similar case on which to try this off hand remedy, but think it worth while to remember it in case of emergency. The other cases were without special features, and made good recoveries.

It has fallen to my lot to treat many cases of Dropsy, resulting from typhoid fever, malarial poison, scarlet fever, and other debilitating affections, and will say that I never found it necessary to tap. A domestic remedy—the Queen of the Meadow—a strong decoction of the root, proves a diuretic of sufficient potency to pump any case dry in ten days, then seal up the exosmosis with mur. tinc. of iron, puts the case in healthy condition. Before using the diuretic it is well to bring the system under the influence of mercury, so as to unlock the secretory apparatus. Where no organic lesion exists in either heart or kidneys, the above treatment is almost specific. But when these organs are seriously impaired, all we can hope for is temporary relief.

Entero-Colitis in children, or Cholera Infantum, has always been an interesting disease to treat. It is a fearful enemy to encounter, as it strikes a deadly blow at the very threshold of humanity. The little bud is nipped

by killing frost before the vernal breezes can unfold its petals in the bloom of maturity. There is not a stage in this swift disease but is marked by the demise of countless numbers of little innocents. From the first hour of the onslaught to the regaining of health, the black wings of the dread messenger hovers over the pinched and pallid face of the little victim. Cholera Infantum carries off more children in the hot months than any other half dozen diseases combined. Hence this should be a most interesting study for the scientist. That a specific bacillus is the cause is by no means a satisfactory solution. I am rather inclined to believe their action is *post hoc* instead of *propter hoc*. It is an easy matter to float with the current, without stopping to investigate, or give credence to a popular dogma. Let the cause be what it may, our business is to arrest the tendency to disolution, and restore the lost equilibrium. The functions of every secretory organ is to a greater or less extent suppressed. The aqueous part of the blood is rapidly poured into the intestines, producing the rice water stools, and causing inordinate thirst, and not appreciably raising the temperature. To successfully meet this condition we must unlock the secretory organs and arrest the exosmosis, re-awaken digestion, that nourishment may be appropriated by the system, which is being rapidly drained of vitality. I find nothing fits these cases better, or even so well, as minute doses of calomel with ingluven frequently repeated. Another favorite prescription I have used for several years is calomel $\frac{1}{10}$ gr. and half teaspoonful each of listerine and elixir pepsin every two hours for a child eighteen months old. When absolutely necessary give paregoric to restrain excessive peristaltic action; but always remember that any preparation of opium tends to obstruct healthy action in all secreting organs. The digestive organs now so weakened that peptic anti-ferments should be continued until a healthy condition is thoroughly established.

Cerebro-Spinal Meningitis, so far as I am aware, has only been known as a sporadic disease. From 1855 to 1888 I met with but one case—a boy eight years old. I was called to see him 24 hours after being attacked with a chill. He was in *articulo mortis*. Opisthotinos well marked; back of head and heels only touching bed. The tonic contraction of muscles relaxed as dissolution took place. No treatment instituted.

In January, 1888, Meningitis appeared in Asheville and traveled east, stopping off fifteen miles north-west of Charlotte. In a small territory I treated 13 cases. Five were of the most violent type. The first case I saw was Mrs. R., 38 years old, white, the mother of six children; general health feeble. Was called to see her February 6th, 1888, at 3 o'clock A.M. Was informed she had a chill 24 hours previously; found her uncounscious, talking wildly; pulse 150, temperature 103; urine and fæces passing involuntarily; said to have been in this condition from the onset, 24 hours, and nothing done for her. Head drawn back, almost touching spine. Applied chloral plaster over cervical and dorsal part of spine; gave hypodermic of atropia and morphia, which induced quiet. At 9 A. M. Dr. Barringer was called in, and after a hasty examination he pronounced the death sentence and left. No change in condition through the day. 7th A. M., partially conscious, so that I could give brom. sodium and calomel. Hypodermic of atropia and morphia continued *pro re nata*. Spine blistered, but looked pale. 8th A. M., gave digitalis, brom. sodium and calomel continued, also renewed blisters to spine. 9th A. M., spent a good night under opiates; partially conscious, drinks milk, complains of sore-

ness, wrists swollen and very sore to the touch; also large swelling in popliteal space. Continued digitalis. bromide and whiskey. 9th. Gave castor oil and turpentine to open bowels. Tongue heavily coated and dry; severe pain in wrists, head and back; tonic spasms of muscles of spine subsided. Lucid intervals of longer duration. Convalescence began on the 10th day; improvement was very slow, but eventually made a complete recovery.

From the study of this case I verified the fact that the effusion on the brain and cord, which is the great trouble we have to contend with, can best be removed by promoting absorption with the free use of the mild chloride of mercury, counter-irritants over affected parts, anodynes and whiskey; in short, combat dangerous symptoms as they appear, and support the system.

More whites than blacks were affected, but the blacks suffered as severely. But one of my cases was permanently disabled—a negro child, four years old, had paralysis of optic nerve of both eyes, resulting in total blindness. Another child, white, patient of Dr. Barringer's, I attended in consultation, was left permanently deaf, by paralysis of auditory nerve.

Cannot some bacteriologist pull aside the curtain and expose the mischievous little fellow that gets up such a frightful disease. If in existence he should be muzzled, if not, rendered amenable to judicious treatment.

Scientific Temperance from a Medical Standpoint.

By James W. Squires, M. D., Churubusco, Ind.

Go ye into all nations and teach the facts to all people.

Art is the product of applied science; science is knowledge, knowledge is power, and power may be a bad as well as a good thing, owing wholly to the application, and the application depends upon the sense of the possessor.

"Good sense which only is the gift of heaven."

And though no science is fairly worth all else. Have you, have we got it?

By temperance we mean a moderate indulgence in appetites and passions in all things beneficial and right before God and man, consequently, total abstinence in all things harmful and detrimental to the best interests of the world.

It was by scientific development and scientific skirmishing that John L. Sullivan became the champion pugilist of the world; that James W. Howard became the champion jumper, Dr. Titus the champion swimmer, Jim Johnson the champion sprinter; and now comes Sandow. No man ever lived in any age, in any country, whom science has done so much for as it has done for this man Sandow in the way of muscular development; and he is now proclaimed the physical muscular giant of the known world. He has been enabled by scientific application to develop his flexors and extensors, his depressors and levators to four times the usual size; and what is true of his strong right arm is true of almost every organ and member of his body. He is capable of expanding fourteen inches, whereas three inches is considered a very good lung expansion for the average healthy man. The average human heart weighs about ten ounces,

but the heart of this man Sandow will probably weigh twenty ounces or more. He has been enabled, by scientific development and application, to raise with one arm a dumb-bell from the floor to arms' length above his head, lower it to the floor, and repeat it time and again, a dumb-bell of one hundred and fifty pounds weight with a man of one hundred and twenty-five pounds weight in each end of the bell, making a total weight of four hundred pounds.

You may be led to inquire of this man as the little son did of his father as to the greatness of Alexander:

"How big was Alexander, pa,
That the people called him great?
Was he so large that he could stand,
Like some tall steeple high,
And while his feet were on the ground,
His hands would touch the sky?"

O, no, my child, he was not so large as many of us, but while nature has done more for us, scientific muscular development has done more for him. This is one kind of scientific intemperance and should be discouraged by the medical profession.

Let these giants—especially Sandow—discontinue the work in which they are now engaged, either from choice or otherwise, and go into the school or counting room, where that immense muscular development is not required, and there will be an atrophy, a drying up, a wasting away, a physical death of that splendid physical development that united science, art, intelligence and application have been years in bringing to perfection.

The little boy listened attentively till his father was through, then remarked, as most of these scientific intemperance men do, along with the dealers, chronic prescribers and consumers of alcohol in all its forms:

"Then if I should kill a man,
I'd kill a hundred more,
I should be great and not get hung,
Like Abdal Young before."

But this is not the generally accepted application of the text. By temperance we usually wish to be understood to mean moderation in the consumption of alcohol in all its forms of every per cent.; but if we can prove positively that alcoholic consumption is injurious to man, and that too in exact proportion to the quantity consumed, then we will be compelled to accept total abstinence as temperance. And as the world has been leaning upon the strong arm of the medical profession ever since long before the birth of our Blessed Christ for proof through which might be inaugurated all the great reforms in the scientific world, which were intended to prevent disease, preserve health, prolong life and make it all the more worth living, upon our bended knees with anxiety depicted upon our countenances, with prayer and song upon our lips, let us appeal to them as the Lord did to Moses in the burning bush, saying, I have surely seen the affliction of my people and have heard their cry, and I know our efforts will not be in vain; "for to speak to the family doctor is, as it were, to speak to a member of the family circle; he is near and dear to every one in the household. When dread disease or accident has suddenly stricken down a loved one, how anxiously we await his welcome footsteps; how with trustful hearts we listen to his cheering words; how he inspires us with the hope of a speedy recovery; how uncomplainly do we follow his advice, and with hopeful smile we take the most detestable medicine

he prescribes. His position in the family circle is one of sacred confidence. The secrets of a home are often imparted to him; while the happiness, love and all between husband and wife are oft exposed to his honor or his treachery." He is the arc of the matrimonial covenant; the repository where are deposited the sacred ties that bind husband to wife, and child to both. "He comes to the bedside of the suffering mother, when in her hour of greatest expectation, but untold agony and indescribable torture, when two lives are trembling in the hand of fate. It is from the cradle to the grave at beck and call, the family physician comes to us in sunshine and in storm, in daylight and in darkness, like a ministering angel to sooth, comfort and cure."

Then as you have trusted him with all else that is near and dear, why not trust him to settle the alcoholic question—the biggest curse the world has ever seen (slavery not excepted), and the one upon the extermination of which the safety, prosperity and perpetuity of our nation depends.

As we turn the search-light of investigation into the remote ages of antiquity seeking for truth and knowledge of the early beginning of medicine, we find helpful authority in the Bible. Do we not recall the words of Job, spoken to his tormentors: "Ye are forgers of lies; ye are physicians of no value!" How common for people even in our own time, when they are stricken with an incurable disease, and have applied hither and thither with no avail, to distrust either the ability or veracity, or both, of their physician. Then it is that the quack and charlatan can alone solace.

And there is Jeremiah, lamenting over the condition of his people, exclaiming: "Is there no balm in Gilead? is there no physician there?"

The art of embalming was understood and practiced 1700 B C.: for Joseph commands his servants and physicians to embalm his body.

Of the early physicians, Æsculapius is the most famous. Owing to his wide knowledge of medicine and the sciences, he was known as the God of Medicine. Hipocrates. another physician and philosopher, was born 460 B. C., and lived a century; and from the fact that, it is said, was the first to practice surgery, he was crowned the Father of Medicine. Next we will speak of Galen, the most noted physician of the second century.

The most noted quack of this early time of which we have a record, was Paraselsus, born in Switzerland, and said to be the discoverer of "The Elixir of Life," a medicine said to be capable of restoring the hoary locks of time to their youthful jetty hue, and of rejuvinating the old and decrepit to youthful elasticity and vigor.

Along down the line comes Harvey and Jenner, Morton and Geoss, Lyster and hundreds of others, whose past works will keep their graves forever green. But we must now turn our attention to the living, profit by the past, and prepare for the future; and in doing so we will briefly notice what a few of our leading thinkers have to say concerning alcohol.

Dr. Josiah Strong says: "The use of intoxicating liquors is more dangerous for this generation than for any preceding;" and he predicts that "this nation must either destroy the liquor habit or be destroyed by it."

Dr. Corruthers states that inebrity is the active cause of from 15 to 50 per cent. of all insanity; from 30 to 80 per cent. of all idiocity; from 60 to 90 per cent. of all pauperism, and from 50 to 85 per cent of all

crime. And we add, without fear of successful contradiction from the medical men of the land, or those in a position to know, that it is the indirect but prolific parent of 90 per cent. of all syphilis, either inherited or acquired, and 50 per cent. of all gonnorrhœas, with their inherent contaminations of disease, of physiological and anatomical degeneration.

In the Philadelphia dead-house atopsies Dr. Formad found that of two hundred and fifty chronic alcoholists 90 per cent. had fatty degeneration of the liver; 60 per cent. had conjestion or dropsical condition of the brain; the same number inflamed or degenerate stomachs, while not quite 1 per cent. had normal kidneys. Such eminent scientists and chemists as Richardson, Shae, Forbes, Winslow, Anstie, Parish, Dodge, and others, confirm the fact that inebriety is itself a form of insanity, and like all hereditary diseases, is transmitted from parent to child, as such as scrofula, gout, hysteria, consumption, cancer, or syphilis, and gives the least hope of recovery, unless treated according to suggestions of modern medical science.

Dr. N. S. Davis, of Chicago, on the occasion of the National Temperance Convention on Staten Island, said: "Alcohol is a poison, and when taken into the system is not assimilated, and while passing through the body it disturbs every physiological process, and is finally thrown off through the organs of excretion unchanged. Hence, if not assimilated it cannot be a food, and as it disturbs every physiological process, it cannot be a medicine. Therefore, if alcohol is not nutritious and serves no purpose as a therapeutic agent, then mankind should be so instructed, and its promiscuous use abandoned. This work can alone be done by the medical profession."

Numerous scientific investigations by various distinguished authorities bear me out in the statement that alcohol is not a stimulant, but a depressant; is not a tonic, but an anæthetic; is not a food for it is not digestible nor assimilative. It is a poison and a deceiver. It impairs the senses, and that too in exact proportion to the quantity consumed. It excites the heart, crazes the brain, inflames the lungs, hobnails the liver, and paralyzes the kidneys. It impairs digestion and induces dyspepsia.

Dr. Albert Day, of Boston, says: "Put back this perilous drug whence it came, into the medicine chest and laboratory, and the master stroke will have been achieved to lesson the evil.

The votaries of folly, who spend the better half of the night in the halls of Baccus and Trepsichore, of Harry Hill and Mother Jinks, will at last dance on scorpion wings, and swim the river of death and misery, instead of pleasure. The effects of intemperance upon the patriotism of a nation is neither obscure nor doubtful.

The man might as well talk of justice and mercy who robs and murders on the highway, as he whose example is pestiferous and whose presence withers the tender charities of life and perpetuates weeping and woe. A nation of drunkards and drunkard-makers would constitute a hell.

We have in this country about 200,000 saloons. At an average of two men or heads of families, to each saloon, we would have 400,000 saloon keepers; at an average of five persons to each family, we would have 2,000,000 human souls dependent directly upon the profits of the saloons for their support. There is rotted in the vats of our breweries 85,000,000 bushels of grain annually, nearly one and one-half bushels per capita, that might be used for food, or feed, but is used to make alcohol

to poison our people. There is consumed in this country about sixteen gallons of alcoholic drinks annually, per capita, and this a free country, and we boast of being a free people. The sixteen gallons of alcoholic drinks cost our people twenty-one dollars per human soul, for man, woman and child, annually, and all without so much as returning a single cent to the consumer, and to no man a dollar, except the drunkard-maker, and the pittance of $36 000,000 to the farmer for the grain that is consumed in its production. Oh! I tell you, a drunken nation cannot long be a free nation.

There are in this country about 105,000 practicing physicians. Whenever we can enlist one-fourth of this number on the side of scientific temperance—and we ought to be able to do it at once, for we furnish the greatest per cent. of drunkards—the work will be speedily accomplished. I confidently believe the baby is now born that will not know (except as history records) such a thing as a saloon, where men can buy and drink fluid damnation over a bar; and not alone in this country, but in no nation of the world, or island of the sea. They will be compelled to go to the drug-store, and there in open view, upon the topmost shelf, in pints and quarts, bearing the impress of the government seal, stamped with the signal of death (the skull and cross-bones), and labeled "POISON! POISON!! POISON!!! For anodine and anæsthetic purposes only," and then only sold to reputable practicing physicians.

Stricture of the Rectum.

By GEO. H. DERRICK, M. D., Oakland, Cal., Professor of Pharmacology in California Medical College.

The old saying, "It never rains but it pours," certainly finds an application in the practice of the healing art. How frequently a number of rare cases almost exactly alike present themselves in rapid succession. These undesigned coincidents in the life of the physician are as varied, as striking, and at the same time as fascinating as the ever changing and yet similar views of the kalaidoscope.

Several cases of stricture of the rectum have recently called our attention to that disease. The first was that of a lady who had suffered from a combination of diseases for fourteen years. She was a confirmed invalid and among her many troubles suffered obstinate constipation if the bowels were not kept free by cathartics. She also complained greatly of dyspepsia and flatulency.

Some four days before her death she suffered from severe pain in the left groin, and when means were used to correct this it shifted to the cæcum. The pain became extreme and changed its location frequently. Considerable impaction could be felt in the left inguinal region and an early diagnosis of intestinal obstruction was made. The treatment, however, was unavailing, except the anodine effects of narcotics. A small rectal tube could be introduced about seven inches, but there it stopped. Enemata of warm water, strongly medicated with sulphate of magnesia, were employed, but no passage could be secured.

Of course, in this age of surgery, any one would have said that left lumbar colostomy was the thing to give relief, but we cannot always have conditions just as we would wish, and in this particular case such an

operation was out of the question. Finally after many hours of suffering, the bowels being terribly distended with gas and feces, and fecal matter being vomited, the gut ruptured into the peritoneal cavity, and death soon closed the scene.

Talk as we will about the value of surgery in such cases, we all know, and if we are candid we will admit, that there are conditions which make an operation out of the question. In such cases it is the surgeon's duty to make the last hours of life as painless as possible. The sad part is to think of these cases going on for years without the real trouble being discovered and treated while there is hope of effecting a cure; This woman had been the round of the doctors and yet the examination had been so superficial that the fatal lesion was not discovered. We are not careful enough in our diagnosis. We take too much for granted; we associate our cases and consider this one like the one we saw yesterday and give jalap and ginger to both. But we cannot escape the awful responsibility which rests upon us as professional men. We *must* be more critical, more analitical, more determined to know the truth in its fullness.

Another case is that of a man, 36 years of age, who applied for relief from a congenital narrowing of the sphinctor ani. An examination showed the orifice to be unnaturally small, and hence dilitation was recommended. After the usual operation a peculiar appearance far up in the gut attracted attention, and on probing it was found to be the inferior margin of an annular stricture, the opening through which was barely three-eighths of an inch in diameter. The constriction was situated 3¾ inches from the anus. The most common seat of such strictures is about two inches above the anal margin, and when so located the feces are tape shaped even if the sphincters are normal. When, however, the stricture is well up in the rectum, the stools may or may not re form after passing the constriction. In the former case they assume the shape of the bowel below.

The etiology of such cases is interesting. The greater frequency of occurrence in females is due either directly or indirectly to the accidents of parturition. The immediate cause is usually the cicatrization of an ulcer which results in a firm band, the lumen of the intestine being partially or even completely occluded. In this case it is probable that the congenital narrowing of the anal orifice had caused an irritation resulting in inflammation and long-continued ulceration. The ulcer had never completely healed, but had rather shifted its base of action and the old seat of ulceration had cicatrized. In the same way the accidents of parturition, especially injury to the rectum and lacerations of the pelvic floor causing partial or complete rectocele, may lead to irritation, inflammation, ulceration, and finally cicatrization.

It is certainly true, however, that syphilis is responsible for a great many such cases. Dysenteric ulceration sometimes acts a part when questionable medication has been employed. Thousands of soldiers were so treated during our late civil war that they were subject to ulceration of the colon and rectum, and thus the crudity of science and the poison of therapeutics were the instruments of suffering and death when the hail of iron and lead had failed. When a specific history can be elicited it will suggest much in the line of cause and cure. The gumatous deposits of tertiary syphilis ulcerate and break down.

The treatment of stricture requires patience and persevering determination, and the employment of such medication as may be necessary

to allay inflammation and heal the existing ulceration. When the constriction is not more than three inches above the anal margin it may be divided posteriorily, the incision being carried through the sphinctor muscels down to the coccyx. The wound is then packed with gauze, supported by a T bandage and allowed to heal by granulation. In well chosen cases this operation will effect a complete cure. Again the stricture alone may be nicked in several places and then dilated gently, and a rectal bougie passed daily for some time.

When more than three inches above the sphinctor, however, cutting is out of the question. We must dilate carefully as much as possible, and as soon as the inflammation is allayed use the bougies, or better still a properly insolated electrode with an olive tip, employing the cathode current. The positive electrode should be a large flat sponge applied over the abdomen. Gently passing the insolated electrode up the rectum until the olive tip reaches the constriction, turn on the current, using just sufficient to cause a moderate burning sensation, and continuing the application for ten to fifteen minutes. This should be repeated two or three times a week till a cure is effected. It is not as heroic as the use of the knife, but it is frequently more satisfactory to both patient and surgeon.

As I was about to send this article I was called to the death-bed of a lady suffering from carcinoma of the sigmoid flexure. I shall give the results of the post-mortem next month.

Hypertrophy of the Pharyngeal Tonsil.

By S. K. Merrick, M. D., Professor of Diseases of the Nose. Throat, and Chest, Baltimore Medical College.

Of all the diseases encountered in children, of a more or less chronic character, and located in the upper air passages, none are more important than the one constituting the title of this paper. I may go further and say, that I know of no condition whose early recognition and timely removal, is fraught with such beneficial results to these little sufferers. The converse of the proposition, however, is equally true—few morbid conditions, neglected, entail such a train of misfortunes.

After an experience of many years devoted exclusively to the study and treatment of diseases of the nose, throat and chest I have come to the conclusion that there is no morbid process in the upper air passages so frequently overlooked and in consequence, of course, so frequently neglected, as glandular hypertrophy in the pharyngeal vault.

Wilhelm Meyer, of Copenhagen, was not the first to mention this disease (for Czermack, in 1860, took note of its existence). yet he was the first to recognize its clinical importance, and his classical paper on the subject, with a report of 102 cases, was so comprehensive, that little has been added to our knowledge from that time, to the present day, although many able investigators have been at work in this field, but have been able to do little more than confirm the observations of Meyer.

While the disease is essentially one of childhood, and probably 90 per cent. begin to develop before the child reaches its teens, many cases are not recognized until adult life. I have just operated on a young man 27 years old, whose hearing in both ears is seriously impaired for life, whose condition was never recognized until referred to me by his physi-

cian for an examination, and that to discover if there was a foreign body in the oro-pharynx, not even suspecting hypertrophy of the paryngeal tonsil.

It is generally iterated and reiterated by authors that there is an almost constant tendency to atrophy if these adenoid vegetation and consequent improvements in the local conditions at or about puberty in these cases.. The same declaration is usually made by nearly all text-books with reference to hypertrophy of the faucial tonsils.

Long experience and close observation on my part, have failed to confirm these statements. I think authors have fallen into the habit of quoting each other without stopping to scrutinize closely their own cases, and noting down the number of cases which they know personally to have greatly improved at puberty, without more or less radical treatment.

As soon as the condition is recognized as adenoid vegetations at the vault, unless there are very cogent reasons for postponing the operation, destruction or removal should be at once attempted, for to rely on the "vis medicatrix naturæ" at the propitious time of puberty, will be disappointing in the large majority of cases, and in the meantime, aural disease of an irremediable character may have supervened. That delays are dangerous in this affection the following statistics will, I think, abundantly prove.

Woakes, goes so far as to say that not more than 5 per cent. escape ear trouble, while Urbantschtsch out of 175 cases of adenoid vegetations found the hearing affected in 150. In Meyer's 102 cases of glandular hypertrophy at the vault, 72 suffered from aural disease, and Swinburne found ear trouble in 27 out of 42 cases.

I have at this time under observation nine cases, the oldest is twenty-seven years, the youngest is eight. One was very deaf five years before she came under my care, and remained so after operation One could hear watch $\frac{1}{40}$ before operation, and two days after operation could hear watch $\frac{8}{40}$. One could hear watch in right ear $\frac{2}{40}$ before operation—one week after could hear $\frac{40}{40}$—namely had normal audition. One other had suffered several attacks of otitis media, but hearing was not seriously or permanently impaired. The other cases had very good hearing, but not more than two had perfect hearing when they came under observation.

If there were no other complications attending the presence (and there are many) of hypertrophy of the pharyngeal tonsils, the above facts would sufficiently emphasize the importance of early recognition and operation in all cases.

Before concluding this short paper I wish to add a few words to those already spoken on the question of atrophic tendencies at puberty.

It is agreed on all sides that in the vast majority of cases of hypertrophy of the pharyngeal tonsil that a like condition exists in the faucial tonsils and that the pathologic condition in the one is essentially similar in the other, and that what tendeney there is in the one to atrophic changes at puberty exists also in the other.

Now the point which I wish to make clear, is not that there is no tendency to atrophic changes about puberty, but that it is far less than may be inferred from the text books. I agree with Sir Morrell Mackenzie in one statement he makes that after thirty years of age there is a very general, indeed an almost universal tendency to atrophy of the faucial

tonsils. That clinically we see this tendency shown at puberty very often I do not believe.

One of the most recent text books on the throat makes the astounding assertion that "probably seventy-five per cent. of the cases of hypertrophy of the pharyngeal tonsils, if left alone would atrophy about the twelfth or fourteenth year, but that irreparable damage may be done to the hearing in the meantime."

The latter clause of this sentence I do not citicize—it is the large percentage of spontaneous cures at or about puberty to which I enter a most emphatic protest. In my experience I am quite sure not ten per cent. of my cases *not* operated have shown any appreciable atrophic changes before adult life.

The following statistics taken from Mackenzie's work, entitled "Pharynx, Larynx and Trachia," will, I think, justify the position I take. He says: "The following table cantains an analysis of the ages of 1,000 patients seen by me at the Hospital for Diseases of the Throat:"

TABLE.

1 to 5 "	84	Under 10 years	265
5 to 10 "	181	From 10 to 20	382
		20 to 30	219
		30 to 40	103
		40 to 50	27
		50 to 60	3
		60 to 70	1

The above were faucial tonsils, but their behavior differs in no way so far as atrophic tendencies go, from the pharyngeal tonsil and the conclusions are irresistable I think.

I am sure that it will be conceded that at least ninety per cent. of the cases originated before the teens were reached. Suppose we say eighty per cent., then this will leave 200 only, beginning after the twelfth year. This leaves 800 cases, from which deduct 265. We have then left 535 which existed after the tenth year. We have no way of finding out how many of the 265, treated before ten years, would have gotten well spontaneously.

Making the most liberal allowance favorable to the claim that great tendency to atrophy exists in hypertrophy of either the pharyngeal or faucial tonsils at puberty, not more than twenty-five per cent. could possibly be claimed from the foregoing statistics and I think if a strict analysis were possible they would not show more than ten per cent. This accords with my experience and will I think be the statistics of the future when less reliance is placed on others statements, (which may be innocently copied) and more reliance is placed on personal observation.

Professional Courtesy.

By J. B. ALEXANDER, M. D., Charlotte, N. C.

A Code of Ethics is not worth much unless its principles are carried out. Ministers and Lawyers are very punctilious in adhering to their rules of courtesy, although their codes may never have been written. I would that I could say as much for the members of the medical profession;

but patent facts forbid it. We are condemned, and justly too, for advertising in any way that smacks of quackery. Only a notice of our willingness to serve the public is admissible. But what is far more reprehensible is practiced with bold faced effrontery on our streets every day, soliciting the patronage of well-to do people, either directly or indirectly.

There is still a worse habit indulged in by some doctors, of which I am ashamed to put in print, but desperate diseases sometimes require heroic treatment. To watch out for pregnant women and ask their husbands to employ them to attend their wives in their expected confinements, is an outrage on decency, and brings the profession into merited contempt. To say to a husband that you will wait on his wife for less than the family doctor charges, should be beneath the dignity of any true physician. Bidding for practice, like a mechanic for a job, should be sufficient cause to ostracise any doctor who would be guilty of such baseness. Gentlemen who love our noble profession must not stoop so low. Twenty-five years ago a doctor would have preferred anihilation rather than truculency to obtain practice. This is written because I love our calling and its honored past record.

216 N. Tryon Street.

The Expression of Ideation.

By James Weir, Jr., M. D., Owensboro, Ky.

What is language? As commonly considered, language is the expression of thought or ideation through the agency of words; fundamentally and primarily considered, language is the expression of ideation through the agency of signs, symbols or gestures, either physical or vocal. Again, ideas may be expressed pictorially, either by *bona fide* pictures of objects, or by signs representing words or objects.

Authoritative psychologists of both schools, evolutionist and anti-evolutionist, agree that there is no difference in kind between the psychology of man and that of animals; both have originated and have been developed in the same manner. Yet, when it comes to the expression of ideation, the anti-evolutionists hold that there is such a wide chasm between the highest of the lower animals, and the lowest man, that no rational bridge can connect the one with the other. I hold that this chasm is entirely imaginary and that the expression of thought through signs, both physical and vocal, begins in the lower animals and leads up by progressive steps to its culmination in man. I do not mean to convey the idea that any element of either ethical or æsthetic abstraction, such as normal man possesses, enters into the ideation of animals; emphatically, such is not my intention. Yet, I do claim that some of the higher animals have reached a degree of psychical development (in certain respects) which places them, in a measure, on the same plane with two-year old babies and uneducated deaf-mutes. Also, that among certain of the lower animals, (notably, the social hymenoptera, i. e., ants, bees, wasps, etc.,) *psychos* reaches such a high degree of development that the expression of ideation, (intelligent communication,) by these creatures surpasses that of infants of two and even three years of age. And, in the case of ants, I unhesitatingly assert that the evidence point to such a high degree of intelligent communication and comprehen-

sion among these little insects, that Lubbock's statement that the ant ranks next to man in the point of intelligenoe, cannot be gainsaid.

Were it not for a psychical accident and anatomical barriers, I am convinced that certain of the higher animals, such as the dog, the cat, and the monkey, would be able to express ideation through articulate speech. I do not mean to say that they would use a language in all its parts of speech, noun, adjective, adverb, verb, conjunction, preposition, etc., etc., but a language more nearly akin to that which is used by a child when just beginning to talk.

In all probability the vocabulary of primitive man was exceedingly limited and consisted mainly of denotative vocal signs; connotative expression in language was only obtained through evolutionary growth. Physical signs, in the beginning, took the places of words and were used in their stead, and man, like the uneducated deaf-mute of to-day, thought pictorially. As a matter of fact, some of the primitive races now in existence are unable to carry on a conversation in the dark, so limited are their vocabularies and so dependent are they on physical signs for the expression of thought! This is true of the wild Veddahs of Ceylon, of the Irulas of the Neilgherry Mountains in India, of the Arapahoes, and of certain of the aboriginal, if not autochthonic tribes of Australia.

When we come to examine the habits of some of the lower animals we discover that they have highly developed languagues. Take the ant for instance; no one who has observed the habits of this interesting little creature will deny that they have a method of intelligent communication. On one occasion I crushed a pismire near the entrance of a nest; in a few minutes the murdered animal was discovered by a companion, which, after examining the dead ant carefully, hurried away into the nest. Shortly afterwards, she returned accompanied by several soldier- and worker-ants, which examined the body then, taking it up, carried it away and buried it. The funeral cortege was escorted to the burial ground by the soldier ants which surrounded the corpse and its carriers. In this instance the discoverer of the murdered ant conveyed the intelligence of the murder to her companions in the nest; immediately a burial party was organized and sent out accompanied by an escort of soldiers to protect the body and ward off insect canibals until it had been safely buried.

I had believed, until Lubbock's interesting work on the Social Hymenoptera appeared, that ants communicated through the agency of their antennæ; I am now of the opinion, (since it has been recently demonstrated that ants, under proper provocation, produce sounds which can be heard by man), that they communicate through the agency of sound gestures. This conclusion has been greatly strengthened by careful, painstaking, and repeated examinations of the *tibiae* of ants, in which are to be found, according to Von Siebold, their auditory organs. The ordinary sounds made by these insects, are produced. probably, by so few or so many vibrations to the second that we are incapable of perceiving them, since the highest tone our ears can register is produced by only 45,000 vibrations per second, and the lowest by some 12 or 15 vibrations per second.

Certain insects allied to ants have organs of stridulation, but I must confess that I have found no such organs in ants, unless they are the ridges and serrations to be found on the dorsal surfaces of the abdominal segments, the rubbing together of which might produce a stridulation, as

pointed out by Lubbock, analogous to that of the grasshopper and kindred insects.

Among the higher mammalia abundant evidences of an ability to express ideation, to a certain extent, through the agency of physical as well as tonal or vocal signs can readily be observed. The dog which calls attention to his thirst and to his empty water bowl, by lying down by the latter and whining (as I have frequently observed my fox-terrier do), uses a physical as well as vocal sign to call attention to the fact that he is thirsty and that he desires a drink of water. My terrier has shown me, time and again, that he understands what is said to him, on occasions, irrespective of the tone of voice in which the words are uttered. If I say to him in an ordinary tone of voice, without emphasis, when I start out for a walk, "Dot, you cannot go," he will stop behind; if, on the contrary, I say "Dot, you can go," he will at once dart ahead and show his delight in many ways. This dog is even intelligent enough to recognize negation when the adverb, *not*, is used in a syncopated form. When I say "you can't go," he recognizes negation just as clearly as though I had said "you can not go."

The instance cited by Romanes and occurring under the observation of the poet Hogg, is somewhat similar to the one just related. Hogg, on one occasion, said, in an ordinary tone of voice, "I'm thinking the cow is in the potato field;" his dog, a collie, at once arose from the floor of the cabin, where he had been lying half asleep, and went to the potato field where he searched about diligently. He at length came back, whereupon his master remarked, "I'm sure the cow is in the potato field;" the dog went out immediately and made another search, even climbing to the roof of a low shed in order to extend his field of vision. When he came back into the cabin his master made the same remark about the cow, but the dog only looked up into his face and wagged his tail. I might detail hundreds of other instances of intelligent comprehension of speech by dogs and other animals, but deem it hardly necessary.

Since its domestication (I might say its civilization, for only among civilized or semi-civilized races of men are such dogs to be found) the dog has acquired the habit of barking. This, in a measure, is a true language; for, by it, the dog can express, approximately, a certain amount of ideation. The hunter knows at once, when he hears "the deep mouthed bay," of some staunch old hound, that the fox has been found; the hound tells him so in a language which he can not misunderstand. The other hounds understand it also, for they rally to the leader and all open out in one grand, full throated chorus. So too, the plaintive and piteous wails of the dog, which has been shut up in an out-house, plainly indicate the misery of the animal which utters them. These cries are no more worthy the name of language than are the groans of a man when in deep sorrow; yet, both are vocal gestures—archetypes of articulate speech, and are, therefore, fundamentally and primarily true language.

Dogs are adepts in sign language: Several years ago, three dogs lived at my house, a St. Bernard, a coach dog, and a spaniel; these dogs were great friends and almost unseparable companions. One day the coach dog and the spaniel had chased a hare into a stumpery in my garden and were busily engaged in trying to dig her out. The St. Bernard, at the time, was in the rear somewhere about the stables. My sister who was going horseback riding, whistled, and the coach dog came at her call and

accompanied her on her excursion. Shortly afterwards the spaniel missed his companion, at once left the hare and came to the house in search of him. Not finding him, he went to the stables where he found the St. Bernard and communicated to him the truancy of the coach dog. The two then came to the house and made a thorough search for the coach dog throughout the entire building, a proceeding that was noticed and commented on at the time, (the St. Bernard and the spaniel were not allowed the freedom of the house and never came in unless invited), my father wondering greatly what had occasioned this strange conduct on the part of the dogs. I, who had followed the spaniel from the time of his abandonment by the truant, remarked that the coach dog stood in great danger of receiving a sound thrashing when he returned home. This surmise was literally correct, for two dogs awaited the return of the deserter and then fell upon him and inflicted a most terrific drubbing. He never again played the truant.

Romanes relates that, on one occasion, one of his terriers was lying asleep on a low wall when a strange dog passed along the road beneath him. The terrier at once jumped to the ground, ran into the house and up to a room where another terrier was lying asleep, This dog he aroused by punching him in the side with his nose; the two then ran down the stairway, out of the house, and up the road in pursuit of the strange dog, which had passed out of sight. In the two instances just related, we see sign language carried to a most wonderful degree of perfection. The signs, which could convey and express such complex ideation as these dogs evidently experienced, show, that here, at least, articulate speech would have been utterly unnecessary.

Not only do the higher monkies and apes show, sometimes, an intelligent appreciation of human speech, which they accept and interpret as vocal signs, but they also (arbitrarily, it seems to me), originate on rare occasions, vocal signs of their own to express ideation.

In 1883 I became intimately acquainted with a large, full-grown Chacma at the Fair Grounds in St. Louis, Mo. This animal was not of a very sociable disposition, but continued kindness finally won his confidence, and he accepted me as his friend. I learned from his keeper that he was passionately fond of onions, so, one day I gave him one which he seized and began to eat, every now and then ejaculating "huh-up, huh-up, huh-up." The keeper said that "huh-up" was the animal's expression for good; that he never made use of the expression unless his food was especially acceptable. A day or so after this when I entered the monkey house, Joe (the Chacma) saw me and immediately cried out "Oh-huk! Oh-huk!" I gave him an onion, which he ate, murmuring "huh-up, huh-up, huh-up" all through his meal. Always, after this day, he never failed to greet me with the cry, "Oh-huk! Oh-huk! Oh-huk!" whenever he saw me.

During the summer, the monkies occupied out-of-doors cages, so that they could enjoy the air; the keeper told me that he often knew that I was on the grounds before he saw me, for he would hear Joe calling me, 'Oh-huk! Oh huk! Oh-huk!" Was this cry a natural call or was it an arbitrary vocal gesture originated by the animal and applied to me? From the evidence, I am inclined to believe the latter, for the Chacma never used it unless when calling me. When he wished his companion a little white and black kitten, to come to him, he cried "Goff! Goff,

Goff!" The cat did not appear to understand him (she was a new arrival) and generally remained where she was; Joe would then walk over to her, seize her by the nape of her neck with his thumb and forefinger and carry her to his corner.

Young children very frequently use arbitrary vocal signs (words) to express ideation. Thus, a girl baby of my acquaintance, two years old, had quite a large vocabulary of arbitrary words; here are some of them:

Bar—Water;	*Zee-zee*—Candy;
Kitch-bar—Milk;	*Doo*—Rice;
Tok—Cat;	*Afy*—Doll;
Nee—Sister;	*Bar-ree*—Nurse;
Bo-nee—Brother;	*Low*—Bed;
Boo—Dog;	*To-to*—Fire, Lamp;
Oh-noo—To go out;	*Ben*—Potato.

Dr. Huss gives the case (quoted by Romanes) in the Monthly Journal of Psychological Medicine, of a young girl, four and a half years old, who had arbitrarily originated a vocabulary of extraordinary length. Although she understood what was said to her she never employed the words used by others. She taught this language to her brother, eighteen months younger than herself, and, when conversing together, both used it. "Of words formed by imitation of sounds, the language shows barely a trace. The mewing of the cat evidently suggested the word *mea*, which signified both cat and furs. For the other vocables which make up the speech no origin can be conjectured. We can merely notice that in some of the words the liking which children and some races of men have for the repetition of sound is apparent. Thus we have *migno-migno*, signifying water, wash, bath; *go-go*, delicacies, as sugar, candies, or dessert; and *waiar-waiar*, black, darkness, or a negro. There is, as will be seen from these samples, no special tendency to the monosyllabic form. *Grummigar* signifies all the substantials of the table, such as bread, meat, vegetables, etc. The boy does not use this word, but uses *gna-migna*, which the girl considers a mistake. From which we may gather that even at this tender age the form of this language has become with them an object of thought; and we may infer, moreover, that the language was not invented solely by the girl, but that both children contributed to frame it." (Romanes: *Mental Evolution in Man.*) Here are a few of the words used by these children:

Gar—Horse;	*Feu*—Sun, Fire;
Deer—Money;	*Too*—All;
Beer—Literature, School;	*Ne Pa-feu*—Cold;
Peer—Call;	*Ma*—I;
Ban—Soldier;	*Go-go*—Candy;
Keh—To soil;	*Mea*—Cat, Furs;
Pa-ma—To go to sleep.	

"The verb *odo* had many meanings according to its position or the word which accompanied it. *Ma odo*, I (want to) go out; *gar odo*, send for the horse; *too odo*, all gone; when it rained, the children ran to the window and called out, "*Gaan odo migno-migno feu odo*," which means "God take away the rain and send the sun"—*odo* before the object meaning 'to take away,' and after the object 'to send.'" Horatio Hale comments on the above abstract as follows:

"From this remark and example we learn, not merely that the lan-

guage had—as all real languages must have—its rules of construction. but that these were sometimes different from the English rules. This also appears in the form *mea waiar-waiar*, dark furs, (literally, furs dark,) where the adjective follows its substantive."

Here, we have an instance of two children, whose mental powers must have been, necessarily, from their extreme youthfulness, very limited, constructing a system of vocal signs and using them to express ideation, Here, then existed no psychical accident, nor anatomical barrier which would prevent the inception of articulate speech; the children were normal, yet they arbitrarily constructed their own system of vocal signs.

The uneducated deaf-mute approximates the higher animals in his ability to express ideation. He thinks pictorially and expresses his thoughts through the agency of signs; without words the power of verbal mental abstraction is to him utterly lost, yet he has a language which is understood by his psychical prototypes, savages, the world over. Mallery states that his Indians were always delighted when they met deaf-mutes in their travels through the United States. Says he:

"The Indians who have been shown over the civilized East have often succeeded in holding intercourse by means of their invention and application of principles, in what way he called the voiceless mother utterance, with white deaf-mutes, who, seemingly, have no semiotic code more nearly connected with that attributed to the Indians than is derived from their common humanity. They showed the greatest pleasure in meeting deaf-mutes, precisely as travellers in a foreign country are rejoiced to meet persons speaking their language."

Gesture language is the same the world over; it is so universal that we can not regard it otherwise than as being a psychical trait inherent in man.

I have shown how language begins low down in the scale of animal life; it is to be noticed in all of the higher, and in some of the lower animals, notably the social hymenoptera; it expresses higher and higher powers of thought until its reaches its culmination in man. I have shown that the higher animals make use of both physical and vocal signs (*Logos* itself is not different in kind) to express ideation; pithecoid man did nothing more. Language, aye! even *Logos* itself is the result of evolution, and the chasm separating the lowest man from the highest animal, so far as the expression of ideation is concerned, dwindles to such an insignificant rift that Chimpanzees and deaf-mutes strike hands across it! Says Prof. Whitney; "That the voice has won to itself the almost exclusive part in communication is due simply to the fact that it is a case of the survival of the fittest." Speech, articulate language, was, probably, purely an arbitrary institution in the beginning, but, owing to its convenience, man used it more and more as his psychical being developed until the "voiceless mother utterance" passed almost wholly into desuetude. Articulate speech may be the property of the human race alone, but the radicals of language spring from a stratum very low in the scale of Animal Life.

The City of Sydney, Australia, says the Boston Medical and Surgical Journal, has imposed a fine of one pound sterling upon any person who may be convicted of spitting upon the floor of public buildings or upon the street.

Some Points in the Treatment of Pneumonia.

By J. M. French, M. D., Milford, Mass.

1. Pure Air.—The pneumonia patient has a crippled lung. His blood must be purified under difficulties. He must do all his breathing in only a part of his normal lung tissue. Hence his need of air of the very best quality. The fewer the aircells at his command, the more imperative is his need that the air should be pure. In no other disease is this point more important. The patient should be placed in a large room, in a bed situated not in a corner, nor close to the wall, but in such a position that the air may circulate freely on all sides of it. Then the room should be well aired, and kept well aired, night and day. Do not be afraid of fresh air. During the continuance of the febrile stage of the disease, the danger of taking cold is, with reasonable care to keep the patient covered and avoid a direct draft, almost nothing.

2. Nourishment.—Pneumonia is a self-limited disease, and the probabilities of recovery depend very largely upon keeping up the strength of the patient until the crisis is past. If this can be done, the prognosis is favorable. If not, recovery is impossible. For this purpose food is better than medicine. By this I do not mean that it is advisable to crowd the stomach with large quantities of food, even in the most nutritious and easily digestible form: Better a small amount, properly digested and thoroughly assimilated, than a large quantity not so disposed of. Indeed, I believe there is great danger of giving too much food, even though it does not seem to disagree. But if the patient has a delicate stomach, the ingenuity of the physician will be taxed to the utmost to find food which can be taken with advantage. When this is the case, it is well to remember that a very small quantity of nourishment—even so small a quantity as a teaspoonful or less—such as milk or beef juice, administered at frequent intervals, may be the means of saving life, when a larger quantity would result in nausea, vomiting, distress, the rejection of both food and medicine, and ultimately in the death of the patient from exhaustion. Fothergill's motto is a good one in this connection, and worthy of being followed: "Keep on the right side of the stomach at all hazards."

3. Nursing.—A good nurse is the doctor's best friend. I do not know but that I might go further, and say, the patient's best friend also. With a good nurse, a sensible patient, and an intelligent family, the physician feels that he can accomplish all but the miraculous in his fight with disease. Lacking these, he is hampered and handicapped on all sides, and sees before him almost certain defeat. A good nurse should not only be able to follow out the doctor's instructions, but she must know how to act in the absence of such instructions; and if it were not heresy, I might be inclined to say that she ought to know some things better than the doctor knows them. At least, she ought to be able to do a great many little things better than the doctor can do them. If that be heresy, make the most of it.

4. External Measures.—Let the theory be what it may, experience has satisfied me that much good can be accomplished in the way of the relief of congestion, pain, and difficulty of breathing, in the first stage of pneumonia, by the use of a mustard plaster on the chest. This should not be kept on too long, and should never be allowed to blister. Later

on, it may be replaced by a flax-seed poultice or a jacket of cotton. My usual practice is to use the poultice during the stage of exudation, then change it for the cotton jacket. But the comfort of the patient should mainly decide. Often poultices are objected to, as uncleanly and uncomfortable; and unless properly prepared and frequently changed, by a competent nurse, they are worse than useless. In cases where there is considerable pain in the chest, good results are obtained by the use of stimulating and anodyne liniments, such as the following:

℞ Tinct. opii.....
Liq. ammoniæ.....
Chloriformi.....a a.....
Lin. sapo.....q.d.....ad..... ℥iii
M. Sig.—For external use.

5. Antipyretics.—In the first stage of pneumonia, as of other acute febrile diseases—and especially if taken at the very outset—I believe that the coal-tar series of antipyretics. such as antipyrin, acetanalid, and phenacetin, are of great value in inducing perspiration, lessening vascular congestion, and diminishing fever. Of these acetanalid, or antifebrin, is, perhaps, the most powerful, but sometimes produces unpleasant depressing effects upon the heart. These may be avoided by combining 10 per cent. of caffein, and 20 per cent. of sodium bicarbonate, with 70 per cent. of acetanalid, and administering in the usual doses. In some instances there is reason to believe that what would otherwise have proven severe attacks of pneumonia, have been aborted by this treatment. In asthenic cases, and in old age, phenacetine is to be preferred, as less depressing in its action, and possessing in addition. much of the beneficial action of opium as an analgesic.

But as a remedy for high temperatures in the later stages of the disease, I do not believe that they are worthy of general use, particularly on account of the increased liability to heart-failure, which they produce. This is *par excellence* the great danger in pneumonia, compared with which hyperpyrexia alone is not to be considered.

I, therefore, prefer, in ordinary cases, to rely upon the simpler diaphoretics, such as the liquor ammoniæ acetates, with cold sponging of the surface, and other mild measures, to lessen the temperature when this is needed. Regarding the cold baths as advocated and practiced by the Germans and their followers. they are not adopted to private practice, nor is there sufficient evidence of their utility to lead me to favor them.

6. Heart Tonics.—In advanced pneumonia, the great things is to sustain the heart's action until resolution can take place. As to the means for doing this, I can not do better than to qutoe from Fothergill the passage which first called my attention to the general plan of treatment which I have since followed with excellent success.

"If, however," he says, "the patient be seen when the disease is far advanced, and the danger be imminent, then you must avert death if possible. The patient is pale, the respiration is very rapid, the pulse weak and thread-like—the patient, indeed, is dying with pulmonary engorgement and a right heart distended nearly to paralysis; and where the right heart is throbbing and palpitating in its attempt to carry on its work, then you would try to keep the heart and respiratory muscles at work, and you would combine direct stimulants to the respiratory center, as ammonia and strychnine, with a direct stimulant to the cardiac centres, as digitalis.

℞ Ammonia carb..... gr. v
Tinct. nucis vom..... m. x
Tinct. digitalis,..... m. x
Aquæ.....q.d.....ad..... ℥i
M. Every four hours.

It would not alter the therapeutic line of attack whether the case was one of pneumonia, simple or tubercular, or bronchitis, or capillary bronchitis; you really treat the disease through the patient. Your distinct business is to avert death. And the above combination has done me great service many a time, and will do so to you too, if given at the right time and the right place."

So much for Fothergill. In my own practice, I have often found it necessary to omit the ammonia, which many stomachs absolutely reject. Occasionally also the bitter taste of the tinctures produce a like effect, in which case the alkaloids, strychnine and digitalin, may be substituted in proper doses, and given in the form of granules. But with this general plan, properly adopted to individual cases, I have had better success than with any other. Nor do I wait until a late stage of the disease, but give the remedy early in asthenic cases, but in smaller doses. And in old and feeble persons, I now use digitalis in the very earliest stages, where in sthenic cases I would use aconite, phenacetine, or acetanalid.

In some cases, when the blood pressure is great, and the heart's action labored, nitro-glycerine may be used with advantage to afford temporary relief to the over-burdened heart. This does not strengthen the heart, but lessens the work it is called upon to perform.

7. Alcoholics.—I am aware that there is probably no one point upon which there is a more radical conflict of authority, or difference of practice, than in the use of alcoholic stimulants, so-called. There is good authority for the free use of alcohol in all stages of the disease as a routine measure; for its absolute and entire disuse in every case; and for all the intermediate stages of use and disuse.

My own convictions have been arrived at slowly, and not without an attempt to study the subject at the bedside carefully. Starting with the supposition that alcohol is a true stimulant, in the sense of increasing vital action, I have come gradually to look upon it as an anæsthetic and paralyzant instead, and to believe that whatever good it accomplishes in this disease is done either by its paralyzing effect upon the vaso-motor nerves, thereby lessening the blood pressure and the consequent work demanded of the heart, in cases where the action of that organ is dull and labored, or else benumbing influence upon the nerve-centres of sensation, thus relieving unpleasant sensations, and producing a feeling of comfort on the part of the patient. The first use can be as readily accomplished by the use of nitro-glycerine and other similar agents. As to the second, I consider that in fulfilling this indication by the use of alcohol there is the same danger that there is in the use of opiates and other narcotics for the same purpose, namely, that the real condition of the patient will be marked by the drug used to lessen sensation, and hence his real danger increased. I am, therefore, inclined to restrict its use very nearly within the limits marked by Lawson Tait, the great ovariotomist, who, when asked, "Do you never give your patients alcohol?" replied: "Never, unless I know they are going to die, and then only to give them an easy death."

There are few authorities who are accorded greater weight in the

medical world than Strumpil, who speaks on this subject in his work on the Practice of Medicine as follows:

"We have yet to make some remarks upon the very extensive use of large amounts of alcohol in pneumonia. Without doubt a free use of alcohol is necessary in drunkards, especially when delirium tremens is beginning, or is already pronouuced. Since the withdrawal of any poison that is taken habitually, like nicotine or morphine. may excite the severest symptoms, the sudden withdrawal of alcohol from drunkards may have the worst results, while if we give an abundant supply of the stimulant, to which the nervous system is accustomed, we sometimes succeed in avoiding the onset of severe nervous symptoms, like collapse and failure of the heart and respiration. It is quite a different matter with patients who, before their illness, have not been accustomed to take alcohol at all, or who took it only in small amounts. It may be true that in those cases small amounts of wine may have a stimulating and exciting action, although we could never satisfy ourselves of the often praised influence of alcohol upon the action of the heart. We hold it, however, unjustifiable to force large amounts of alcohol indiscriminately upon every patient with pneumonia, often in spite of great resistance upon his part. Why should we expect sick people to bear doses of alcohol which have only bad results in healthy men unaccustomed to them?"

Another reason on my own part why I now use much less alcohol in pneumonia than formerly, is that since adopting the systematic administration of heart-tonics, I find far less occasion, either real or apparent, for it. Nuxvomica and digitalis seems to me to give more permanent strength, while ammonia and nitro-glycerine furnish a quick acting stimulant in case of urgent need.

Still another reason for looking with disfavor upon the routine use of alcohol especially, is the fact that my observation has convinced me that those physicians who make a practice of using it in this manner, have a needlessly large death-rate in pneumonia as the result.

About the Diagnosis and Prognosis of Albuminuria in Pregnant Women.

By Dr. E. M. Dupaguier, New Orleans.

Rule with Exceptioms.—While we cannot undervalue the absolute rule of testing for albumin and researching for casts in the urine of pregnant women without exception, we must admit that, when albumin is found in the urine, it does not have the same significance in all cases.

Are we to always generalize upon the discovery of albumin in the urine, and to always attach to all cases the momentous omen which albuminuria portends? No. It is a fact that albuminuria is discovered in pregnant women who suffer no inconvenience from it, going through labor without the least disturbance.

There are certainly some exceptions in regard to the usually unfavorable prognosis of albuminuria in pregnancy, cases in which albuminuria is of a mild character because of its origin. We cannot determine this species of albuminuria, or in other words diagnosticate it readily by means of distinctive marks, but we can easily recognize the conditions which cause the appearance of albumin in the urine with a clinical significance of less formidable import.

Causes of Error.—Among the conditions alluded to we may refer, by the way, to some frequent occurrences, a source of common errors which are easily recognized and avoided, as, for example, an abundant leucorrhœa, mingling with the urine when it is passed, In such cases, to be correctly tested, the urine should be taken from the bladder by means of a catheter. Other times, this precaution is insufficient, as, for example, when the urine is mixed with pus in the ureters or in the bladder, but, then, the microscope, which should always be used in every examination, reveals the pus cells. In these instances there is, of course, no albuminuria.

Let us consider the case in which there is elbuminuria, properly speaking. Are there other conditions that may account for it aside from some form of Bright's disease (pathological conditions) or the state of gestation, *ipso facto*, albuminuria gravidarum of the French. (Bouchard.) There are, when the woman is anæmic, strumous, enfeebled, albuminuria due to changes in the constitution of the blood.

When the woman was affected, prior to her becoming pregnant, with gastro-hepatic disorders, the usual auto-intoxication resulting from them not having yet damaged the kidneys (Hasley, Johnson, etc.) It is a fact that such cases are not always aggravated by gestation.

When there exists dropsy of the ammos or gemellary gestation, albuminuria from increased blood-pressure.

Finally, a pregnant woman may also belong to that class of individuals who present Scnator's physiological or functional albuminuria, and Pavy's cryelic albuminuria.

The consideration df these various conditions is of practical importance. For, if we were to treat all cases of albuminuria alike, that is ordering the only recognized treatment, the rigid milk diet, and making universal this therapeutical application as a rule and formula, we would not only fail to materially better our various cases, but we would cause apprehension and alarm quite *mal a propos*.

Take, for instance, a case of anæmia, in which substantial food is required instead of milk, even when a gallon, the normal ration, is ingested daily. Take a case of dyspepsia, which can hardly digest milk, even when the ordinary adjuvant, vichy water, lime water, are mixed with it.

Conclusion.—It would be interpreting these remarks in a very wrong light, if it was thought I meant to reduce the importance of albumenuria in pregnancy. I believe it is our duty to carefully watch any care presenting albumin; but need I add now that there are points of interesting discrimination?

This review of albuminuria, which a recent case has prompted me to make, merely recalls the variable significance of albuminuria, and the practical advantages that may be derived from this well known fact.

Dr. J. A Cantrell (Philadeldhia Polyclinic) says that an ointment of 15 per cent. of salicylic acid in lanolin or petroleum, applied for three days, then curet the part, will cure warts.

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As these cheap and inefficient substitutes are frequently dispensed instead of the genuine preparation, physicians are earnestly requested, when prescribing the Syrup, to write "Syr. Hypophos. **Fellows.**"

As a further precaution, it is advisable that the Syrup should be ordered in the original bottles; the distinguishing marks which the bottles (and the wrappers surrounding them) can then be examined, and the genuineness—or otherwise—of the contents thereby proved.

Medical Letters may be addressed to

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ANTISEPTICS IN PURULENT CONJUNCTIVITIS.

It would seem that the time had gone by when we must resort to the caustic astringents in the management of those inflammatory diseases of the conjunctiva which are without doubt now known to be of bacterial origin. With the microscope and the culture tube at our disposal, a more certain means of correct diagnosis is within our reach and if we base our therapeutics on rational grounds, nothing would seem to be lacking in the way of evidence that antiseptic treatment has all in its favor, while the caustics have much to condemn their use.

Purulent conjunctivitis is without doubt a very serious affection, not only on account of the suffering which it entails, but because of its danger to eyesight as well. Heroic measures have been considered justifiable, on the grounds that they were to be applied to the lids in order to forestall corneal complications in time to prevent serious impairment of vision, if not total loss of the eyes later. Any one who will take the trouble to visit our Institutions for the blind will easily be able to find ample evidence of the ravages of purulent ophthalmia and its melancholly sequellæ in the eyes of those unfortunate individuals who, Alas, we are compelled to believe, through neglect on the one hand, or through severe and unskillful treatment on the other have paid to dearly for the sins of others by the loss of their eyes. Few cases of failures, since the last quarter of a century, can be laid at the door of those practitioners who were well up on ophthalmology, even where the use of the caustics have been the rule, because the skill necessary to their proper use has been forthcoming, and yet there have been some failures reported, even in the best of hands; it will not do to utter a sweeping condemdation, as some have done, and say that no case of ophthalmia neonatorum need ever be lost. We often do not get these cases as early as we should; besides some of them are so far removed from special care that earlier special attention is an utter impossibility. When Crede instituted his prophylactic treatment, by advocating that a 2 per cent. solution of argentum nitrate be dropped into the culde sacs of the eyes of all children immediately after birth, it was held that a great advance had been made in the prevention of blindness from this source; yet we must remember that was in hospital practice, where the facilities for watching and caring for such eyes is far greater

than in general practice, besides some skill was even in these cases required in order to prevent the solutions from coming in contact with the cornea, and the procedure was of doubtful utility. Not all eyes of all new-born have purulent disease. Why then subject those not so endangered to the risk of injury liable to come from the application of a remedy in itself more or less dangerous in unskillful hands? Admitting that argentum nitrate is one of the very best of antiseptics does not remove the objection mentioned above. If all doctors were oculists, probably nothing but good would come of such a practice. Still very few oculists would do this, because of the fact that very few of them have any fears as to the management of neonatorum, if they can see it when it first begins; they would attack it with the utmost confidence of being able to controll it after it had surely begun; so much so that they would not give themselves any uneasiness at all as to the eyes in which no signs of it were present. This practice therefore is doomed to fall into disuse, and deservedly so, because it is unscientific, irrational and unworthy of our confidence. But when we come to the more reasonable, more scientific, and demonstrable basis of specific bacterial origin of all of the different forms of purulent ophthalmia, we have a foundation upon which to build our therapeutics, more solid and lasting than the eternal hills; moreover if we can adopt as our weapons of warfare those agents which will in every way fill the requirements, antiseptically, and at the same time be of no direct harm to the tissues, then we may forego in a measure the required skill which is necessary in the application of those remedies classed as caustic astringents, and the general practicioner will have placed in his hands the ready means of handling those cases, the circumstances surrounding which render them incapable of obtaining special treatment at the hands of the ophthalmologist. Such will be found to be the now accepted practice based upon antiseptics.

Foremost in this line we find the various methods of irrigation. Provided the cul-de-sacs of the infant affected with purulent ophthalmia are washed every few hours and kept clean, with sterillized solutions of the various germicides not too strong, there will be but little necessity to interfere otherwise. Solutions of Bi-chloride have been recommended very highly, by some of the best authors, and would seem to be the most rational. The fact that this remedy is somewhat irritating to the eye, especially in such strength as is frequently employed on other surfaces, offers an objection not easy to overcome, and yet it can be employed with very good success even here, provided it be sufficiently diluted. Solutions of one to four hundred, one to one thousand, and one to five thousand have been recommended, but these are all too strong. A solution of one to ten or even fifteen thousand is strong enough. And it should be accurately made, and always with the water well sterilized by boiling before use. It is to be used cold, in infants, although there is no objection to having it hot in adults who can have the lids everted, and the remedy thrown on with some force by means of a syringe. Boric acid solutions are safer and are much easier to apply. These can be of any strength from ten per cent. up to a saturated solution. Pledgets of cotton soaked in saturated solution of boric acid can be used by the attendant, nurse, or mother, and these should be resorted to for cleaning the eyes every hour, and then burnt. With a pipette or small syringe the eyes should be washed out at least twice a day, or oftener when possible, and as soon as

the lids can be everted the upper and lower cul-de-sacs should be washed out.

Dr. X. C. Scott of Cleveland Ohio, has formulated a most excellent plan of treatment in these cases, which deserves to be adopted generally. He recommends the following:

Rx. Hydrastis Sulp.
Acid boric
Sodii bi—borat.....aa Grs. V
Tr. Opii deodorata.....℥ ss
Aqua Destillata.....℥ j
Mx and filter

This preparation he recommends to be injected into the upper and lower cul-de-sacs about six times a day by means of a glass pipette with a blunt point of such a shape that it will not abrade the surface of the conjunctival membrane should it happen to come in contact with it during the treatment, by the child becoming restless and moving the head.

"HEREDITY" AS A DEFENCE TO AN ACTION FOR BREACH OF PROMISE.

Actions for breach of promise to marry, while unfortunately far from being rare, are frequently amusing to those who form the audience in the courts of justice, but it is extremely unusual to find such causes giving room for the introduction of evidence of a scientific or quasi-scientific nature. In the case of "Frond versus Swell," recently tried in the Queen's Bench Division of the High Court of Justice in England the question for the jury was not so much of fact as bacteriological and medical, owing to the peculiar nature of the defence. The evidence proved that the defendant, one Dr. Swell, met a certain pretty Mis Frond in a London store, and being pleased with her handsome appearance, he obtained an introduction, and after the lapse of a proper interval he proposed marriage and was accepted.

The course of true love did not run smooth, however, according to an ancient gentleman, of the name of William Shakespeare, it never did, in this case not because of the presence of a mother-in-law, but rather in consequence of the absence of that usual and much maligned appendage of matrimony, for sad to relate the estimable and fascinating yound lady had lost her mother from that dread disease tuberculosis.

Now it appears that Dr. Swell is a gentleman who still firmly believes in the hereditary transmission of consumption, whether he is a follower of Lawson Tait—who is an infidel so far as bacteriology is concerned, and who loudly protests that it is not "even a decent theory," and should be suppressed even as he would have vivisection wiped out of existence—or whether he (Dr. Swell) has accepted, what is now generally regarded as a fact, the existence of tubercle bacilli, no evidence was produced to show.

But so impressed was he with the dangers to his possible offspring, from the now almost if not quite exploded theory of "heredity," (qua heredity) that in spite of the fact that Miss Frond's physical appearance failed to show any signs of a tubercular condition or tendency, he declined to ratify his part of the contract and marry her.

Hence the action for his breach of promise to marry, and the

empanelling of a jury to try a question of medico-bacteriological interest. In these days when it has become the fashion to belittle the conclusions of juries, it is satisfactory to find that the jury in this case was up to times in the verdict it recorded; for with little delay and hesitation it found for the plaintiff, with damages which it rightly (as we think) assessed at $5,000, one thousand pounds of English money. We know men who say "that juries are always wrong"; we have said the same thing ourselves, when they have decided against us in cases in which we have been interested; if this statement is true, then the jury in the case of Frond vs Sweil must be the exception which goes to prove the truth of the rule. We congratulate the lovely plaintiff, no less on her escapo from what probably would have been a very irksome bondage, than on her acquisition of what in England is a fairly large sum of money, not so large, however, as awarded in the famous trial of Bardell vs Pickwick, immortalised by the late Charles Dickens. To be mated to such a pseudo-scientist as the defendant Swell seems to be, is not the fate to which we would willingly consign our bitterest (female) enemy.

Dr. Swell has by this time probably, metaphorically, kicked himself several thousand times for not having raised a different defence or not having taken a course, in this Country or in some other, which has not such a tenacious grasp on conservatisms, if we may thus apply the term, in modern medicine and the rudiments of bacteriology in order to be au fait with the most recent thoughts of the great thinkers in our department of science. It would not have cost him so much as the verdict of the jury, to which must be added the low costs, never a trifling consideration, and he would, unless very dense have reaped the benefit of the outlay in his being better fitted for the exigencies of practice.

Each party to the formerly existing contract may derive a useful lesson, the plaintiff that "things are seldom what they seem and that skimmed milk masquerades as cream," and that existence in the bonds of matrimony with a not up-to-date doctor is not so full of glamor as at first might be apparent.

The defendant will, or should, learn that when next he desires to change his state of single blessedness he should, if unwilling or unable to keep abreast of medical knowledge himself, send the lady to whom he wishes to do the honor of linking himself to some competent physician so as to ascertain whether there exists any valid and truly scientific reason to suspect that his offspring will not be as healthy as he could desire. In this connection we would advise him at the same time submit himself to the same ordeal, not only in the interests of the possible "olive branches," but also of the lady he would enslave in the chains of matrimony.

The perusal of this case has given us unqualified satisfaction; both of the litigants should be satisfied with the verdict, the plaintiff because she has obtained $5,000, the defendant because at that cost he is saved from tubercular progeny. The jury is to be congratulated on having decided in strict accordance with modern science, while we personally feel pride in the fact that there exists, at all events, one man in the profession, who considers that he owes some duty to his posterity. Who shall say after this, that doctors live for themselves alone and have no care for the coming generation?

ACCOMMODATION; INFLUENCED BY GENITO-URINARY IRRITABILITY.

While it may not be a matter of easy explanation it is nevertheless true that irritability of the genital organs and of the urinary tract in both sexes does frequently modify the normal physiological action of the ocular nerves to such an extent as to interefere with the proper comfort and usefulness of the organs of vision.

The writer has seen oftentimes in young people, in females at or near the first climacteric, and in boys beyond puberty, certain symptoms which were to be accounted for only on this explanation. These symptoms resemble to a certain extent, eye strain. They would be amenable to those therapeutic measures usually adopted for the relief of that trouble but for the fact that in such cases no special anomaly of refraction exists, or where it does exist and is properly corrected, relief does not follow as it should. Moreover, oftentimes it is found that these people use their eyes so little that there seems to be no excuse for "Eye Strain" or Asthenopia, for the reason that many of them study so little and so indifferently, and in fact use their eyes for the near point so much less than seems proper that they should that it seems like a paradoxical statement to say that they "have strained their eyes." Notwithstanding all this, the hyperaesthesia of the retinæ, the discomfort in bright light, the apathy of accommodation the apparent distaste or incapacity for work continues; they change their glasses frequently, they journey from one oculist to another, and then back to their family physician, until finally some radical change in their habits of life occurs, like matrimony, if they have been single, or some domestic disturbance which has changed the course of their lives, or a long spell of sickness, if they are older, when by accident or design they are again seen, and behold, their former condition of discomfort has disappeared.

It is advisable in such cases to look after the genito-urinary tract. In girls who ride the bicycle, a vulvo-vaginal irritation will frequently be found, in boys or even men, prostatic irritation may exist. Acidity of the urine, irritation of the neck of the bladder, with uric acid crystals present in the urine, and in not a few instances nocturnal emissions have been known to exist as a factor in part at least if not wholly accounting for these troubles.

Salines are said to act well in these cases. Bi Carbonate of Potassa, Husbands Magnesia, Bromo Lithia, and even Salicylate of Sodium may be given. But before any treatment be begun, a thorough and careful examination of the urine should be made. If found to be acid, or if it contain much bladder or vaginal epithelium, spermatozoa, etc., much light will be thrown on the subject. In the more mature type of patient, where presbyopia is well on and seems to be irregular in its method of advancement, now less now more, some days not at all, as it were, but still that ever recurring dissatisfaction with the eyes whenever they are forced to work, vesical catarrh, hypertrophy of the prostate et *id genus incommodatorum* may be found to seriously interefere with the proper function of the accommodation and the coordinate recti muscles which govern fixation, that the proper correction of the presbyopia will be illy borne and in some cases not accepted at all.

Albumen or sugar is liable to be present in the urine; whether this is of "nervous" origin or associated with pathological changes cannot in

all cases be easily made out. In many instances it seems to be evanescent and functional; in others constant. Codia works well here, so also does Hydrate of chloral and Bromide of Potassium. These drugs will be found especially usefull when proper attention is given to the local treatment of the organ at fault as well as to the eyes.

PROFESSOR ROENTGEN'S DISCOVERY IN THE SERVICE OF SURGERY.

Professor von Mossettig, Surgeon of the Second Division in the Vienna General Hospital, has used photography with the newer method, in two cases with success. In the first case, a bullet from a revolver could not be located, and found embedded in the lumbar region; the second a case of supernumerary toe, which looked, by common examination, like an enlarged one—the x rays showed plainly a second toe, which was easily removed.

At the University Hospital of Gray, Austria, Professor Pfanneller located a needle, which a girl had for quite a while in the palm of her hand, but the exact position could not be made out, but by the help of the x rays it was found and easily extracted.

At Guy's Hospital, London, a sailor was brought to the hospital in an intoxicated condition; he was paralized; there was only a small bleeding wound at the lower spinal vertebra, which healed in a few days, but no improvement for the patient. The chief surgeon of the hospital, who had read about the discovery of Roentgen, thought to try it. The spine was photographed and the picture revealed a foreign body at the last lumbar and first dorsal vertebra, the nature of which could not be made out. An incision was made and the point of a knife was found, and so deeply embedded that it had to be chiseled out. The next day patient left the hospital completely cured. The discovery will be a great help for surgeons and we may look forward with interest to new developments in this unique discovery.

Professor Roentgen was born in Prussia, graduated at Zurich, Switzerland. He is now Professor of Physical Science at the University of Wurzburg, Germany, and Dean of the Faculty. He is 52 years old, and very modest in intercourse.

JOURNAL OF EXPERIMENTAL MEDICINE.

We shall welcome with pleasure the appearance of this Journal, which is devoted to Physiology, Pathology, Bacteriology, etc. It will be edited by Prof. Welch, of Johns Hopkins' University, Baltimore. Among its contributors we find such names as Chittenden, Howell, Prudden, Osler Pepper, and others, and with such an array of talent it will be a success from the beginning. A journal like this is a conclusive proof that scientific medicine has taken firm root in our country, and it will do more good than all the ukases emenating from Boards of Health about using only disinfected slates and bacilli proof book covers.

Medical education in our country is a good deal better than it used to be. The common one formerly in vogue, and a three to six months run to Europe to get a continental polish, certainly was not conducive of making original investigators.

This new journal will, no doubt, bring in closer contact all science for workers with each other, which will tend to stimulate original thoughts.

MEDICINE A DEBTOR TO THE POOR.

When we consider that to day medicine has attained to a considerable degree the precision of a science—that its influence for good is being recognized by statecraft, as manifested by sanitary legislation in every civilized government—it may be well to reflect a moment and ask why this wonderful advancement has taken place. Several reasons may be urged. Two seem to us particularly momentous. 1. The earnest study given by earnest men to wring from nature her secrets. 2. The treatment submitted to by the poor.

For the past few hundred years anatomy and physiology, the foundations of medicine, have been actively investigated, and an inductive search after facts has distinguished the modern school in lieu of the an cient dogmatic method, which taught medical principles to be true, not because they could be demonstrated so, but because the old masters had taught them, and they were worthy of credence, since "in them days men were giants."

However much men should have applied themselves to the study of medicine and surgery, but little of the great advance in medical practice would have taken place without the poor. Lady Montague was not the first to submit her child to inoculation, nor was Queen Victoria the first to experience chloroform anæsthesia. Everything new in the line of medicament or operation was first tried on the poor. Roux, of Paris, got his first success in the treatment of diphtheria by antitoxin among the very poor, and what finer picture could be painted in our realistic art loving age, than that of Roux, in a hovel, bending over a sick child, his eyes scintillatidg with the joy of discovery that the dread scorge, diphtheria, had at last been conquered.

Notwithstanding this, some physicians forget their obligations of simple gratitude to the poor. "Clinical material" is the fashion in which they speak of human beings—apparently more unfortunate than themselves; and some have gone so far as to violate the natural rights of man to health and safety, unwittingly to the poor patient, in order to obtain light upon some pathological process in which they happened to be interested. Such men are unworthy to practice or to teach medicine. Their example is baneful to the young men in the profession, who, the Lord knows, are sufficiently puffed up with self importance and power, without the need of further stimulant in the way of such brutal example.

The true physician will ever venerate the poor as he loves his science, knowing well what a large share has been theirs in its advancement. He will always befriend them, if from no higher motive than that of simple gratitude—for he could not treat the rich man as he does had it not been for the poor.

HARVARD MEDICAL SCHOOL.

A new departure in medical education will be inaugurated at the Harvard Medical School, beginning in 1901, after which date no student will be received who does not possess his A. B. degree.

This is a rather bold step to take, and one not at all likely to be followed by widespread imitation by the medical schools throughout the country. It is praiseworthy, however, and more in the right direction toward higher medical education.

NOT IN THE TEXT BOOKS.

There are many little knacks found useful in practice which are not to be found in the text-books. The busy practitioner learns much by experience, and he would favor his fellows by taking a few moments occasionally to jot down something he has originated and found beneficial to his patients, and sending an account of it to his favorite medical journal. He need not strive to elaborate what he has to tell of into a medical essay; the attempt will weary him, and, it may be, that his idea is not worth such elaboration. Let him write clearly and concisely of what he has done, why he did it, and the result. We repeat, such information will interest and benefit his fellow practitioners. As an example of what we mean we publish the following notes:

Getting a Bean Out of the Nose.

"A child was brought to me one day who had put a bean up her nose. The bean having absorbed moister had swollen; it was in so far as to be just perceptible to the sight. I had no special instruments with me, but found that I could push the flat end of my probe (it was quite thin) between the wall of the nostril and the bean. But it would not catch onto the bean. To make it do so I bent the extreme end of the probe in the opposite direction, and was gratified to find that after pushing it then until the point was back of the bean, upon withdrawing the probe the bent portion of it pricked into the bean, and I readily removed it by means of this improvised instrument"

A Simple Method of Getting a Brass Ring off a Swollen Finger.

"Some time ago a child was brought to me with a brass ring on her middle finger. Her parents had tried in vain to get it off. The ring was one of those flanged ones that are found on cheap tool handles. The flanged portion was toward the hand and the finger was much swollen, the flange being embedded in it. I was about to get instruments to attempt cutting the ring off, when my eye caught sight of one of those small endless elastic bands made of India rubber. I put it on the finger, ring fashion, and after twisting it several times so that it would constrict the finger, and pushed it over the soaped finger under the ring and next to the flange. The elastic constriction quickly reduced the edema, and the ring was easily removed, it following after the elastic, the sharp flange not even scraping the finger. This way out of a similar ring difficulty is well worth remembering.

WHY MOST PHYSICIANS DIE POOR.

It is strange, but nevertheless true, that most of the medical profession fail to accumulate anything approaching a fortune, and, sad to say, often die with liabilities far in excess to their assets. No man is less remunerated for the long hours of toil and worry than is the family doctor. He is, as a rule, a poor business man, poorer still as a financier and collector. So generous is his nature that he is constantly forgetting to provide for himself and family. Being a poor financier and loose in business affairs, he is continually being used as a target for the shark to aim at. A scheme is presented to him, he glances over the plans with his profes-

sional eye and immediately falls a victim to the statement, "You will get big divideds." He never gives a thought as to what becomes of his principal, and, as a rule, leaves his elephant much worse for the encounter. He is careless about his book keeping, and his bills are sent out with appalling irregularity.

What business man would think of buying books, instruments and drugs without in each purchase getting the lowest possible price, and then deducting his discount. The physician buys too readily, and that, for which he has no use.

His social standing requires him to give liberally to the charities, and the constant drain on his purse for the entertainment of his many friends plays no little part in eating up his savings. The doctor is a poor insurer. A physician with a yearly income of four thousand dollars, should carry at least twenty five thousand dollars in ordinary life insurance at a cost of five hundred a year, or should, if possible, pay twice this sum for a like amount of insurance payable in twenty years. Allow old line insurance companies to play the shark game with you, for then, at least, those dependant upon you will be safe in case you are suddenly taken from them.

Insist on the laity knowing that the physician does not roll in wealth and that he requires prompt payment of accounts just as does the merchant. Let it be posted upon your door: "*The laborer is worthy of his hire.*"

ANTITOXIN TREATMENT OF DIPHTHERIA.

While the majority of the profession, probably, are ready to admit that serum-therapy as applied to diphtheria may be considered a success. Yet it may be a conclusion that will have to be withdrawn in the light of further events and longer experimentation. The treatment of disease by animal extracts, and by the serum-therapy, is to many people repugnant, and meets with opposition. If, however, in the light of experience the fact of the efficiency of such treatment is clearly demonstrated the opposition to it will be easily overcome as in the case of vaccination.

That the use of antitoxin for the prevention and treatment of diphtheria is not devoid of untoward consequences is apparent to the reader of medical literature along this line. If we are to accept the reports that come to us through the general press the evidence is still greater. It is a question whether all failures and untoward results are reported by those using the treatment. The profession ought to know and have a right to know all the facts concerning a treatment from which so much is expected and desired.

The conclusion of so eminent an authority as Mr. Lenox Brown should caution us to weigh well all the evidence that may be brought to bear on the case. Obviously the statement that the mortality under the use of antitoxin is eight per cent., and in cases where it was not used the mortality is fifty per cent., proves nothing unless we know the character of each class of cases, their treatment, hygienic surroundings, and all other factors that might influence the result. Let us have reports that are full, complete and convincing, whether our preconceived notions are established or overthrown.

PATHOLOGY OF EMPYEMIA.

The classification of disease affecting the respiratory system are based upon a difference in pathological character of the mucous membrane lining the air-passages.

The science of pathology, formerly taught that inflammation was a disease, but the modern pathologist recognizes the fact that it is a perfectly normal process of repair. For instance, if an injury to the pleura be received, the process of repair is nothing more or less than inflammation, just the same as though the tissue or muscles of any other part of the body had received an injury, such as a cut, or bruise, the plan of repair would be the same, and the first thing to take place would be an effusion of blood protoplasmic cells and its coagulation, then a rapid wandering of cells into this blood-clot occurs, soon organization takes place, new tissue build up and the injury repaired. This is inflammation and the normal process of repair, as much so as the growth of the stag's horn. But all injuries are not thus repaired so easily, because there are so many armies of wandering diseased germ cells that are on the lookout for an opportunity to invade some garden spot, or injury to our system. To produce disease caused by germs, two conditions are essential: First, inflammatory material; and, Second, germ life. Nature attempts to repair the pleura by inflammatory action, but should there be diseased germ cells in the circulation, then inoculation of the area of inflammation takes place, and the phagocytes, which are the wandering tissue cells, are thus weakened and fail to destroy the germ, which in turn destroys the phagocytes and converts the area of normal inflammation into disease, with the result of effusion of serum, lymph or pus, producing empyemia.

"Advertising is to business what steam is to the locomotive," said Macaulay, and to judge by the numerous advertisements of quack remedies to this business it must be fuel as well as steam. If anything were needed to prove the truth of the statement made by Carlyle "that the world is peopled by men and women for the most part fools" an abundance of corroboration would be found in the perusal of the numerous testimonials given by various men and women, especially the latter, of course mostly fools, to the ever abounding medical fakir.

Unfortunately, owing to the very lax way in which the laws are enforced in many of the States, especially true of those in the West, these quacks are allowed to cheat and poison the public with their nasty potions with almost impunity.

The competition is so keen, we are sorry to say, that in many cases men who are by law entitled to describe themselves as "regular" are, in some localities within our ken, adopting the tactics of the quacks and lowering themselves (which does not matter) and the whole profession (which does matter) in the eyes of the great mass of the not very intellectual humanity which is designated the public. We long for the time when there will be but one portal for admission into the ranks of the profession, and when some provision will be enacted for depriving those guilty of infamous conduct of the right to practice.

This will certainly not come to pass until some of the various State Boards display a little more courage in enforcing their penal regulations than they do at present.

BOOK REVIEWS.

DIAGNOSIS AND TREATMENT OF DISEASES OF THE RECTUM, ANUS, AND CONTIGUOUS TEXTURES. Designed to Practitioners and Students. By S. G. GRANT, M. D., Professor of Diseases of the Rectum and Anus, University and Woman's Medical Colleges; Lecturer on Intestinal Diseases in the Scarritt Training-School for Nurses; Rectal and Anal Surgeon to All-Saints, German, Scarritt's Hospital for Women, and Kansas City, Fort Scott, and Memphis Railroad Hospitals, to East-Side Free Dispensary, and to Children's and Orphans' Home, Kansas City, Mo.; Member of the American Medical Association, National Association of Railway-Surgeons, the Mississippi Valley Medical, the Missouri Valley Medical, and the Missouri and Kansas State Medical Associations, etc., etc. With two chapters on "Cancer" and "Colotomy" by HERBERT WILLIAM ALLINGHAM, F. R. C. S. Eng., Surgeon to the Great Northern Hospital; Assistant Surgeon to St. Mark's Hospital for Diseases of the Rectum; Surgical Tutor to St. George's Hospital, etc., etc., London. One Volume, Royal Octavo, 400 pages. Illustrated with 16 Full-Page Chromo Lithographic Plates and 115 Wood-Engravings in the Text. Extra Cloth. $3.50 net; Half-Russia, Gilt Top, $4.50 net. The F. A. Davis Co., Publishers, 1914 and 1916 Cherry Street, Philadelphia; 117 W. Forty-Second Street, New York; 9 Lakeside Building, Chicago.

This is a most excellent book and will be of great aid and help to physicians. In the whole range of surgical pathology no other class of diseases among civilized communities is so prevalent, causes more suffering, and induces so many varied replys and distressing sympathetic affections as the diseases occurring about the Anus and rectum. The author has fully succeeded in giving to physicians and students as well, a precise, yet practical work. Throughout the entire work no superfluous language is used. Every chapter is classified so that one can obtain what they want without reading half the book. This is a splendid feature of the work.

The illustrations are all new and original, most of them being from photographs of the cases of the author and Dr. Allingham.

It contains everything up to date of interest to those who wish to do rectal work.

It contains two important chapters that are entirely new in a work of this kind, namely: "Railroading as an Etiological Factor in Rectal Diseases" and "Auto-Intoxication, or Auto-Infection, from the Intestinal Canal."

In short, it is the *par-excellence* work on "Diseases of the Rectum, Anus, and Contiguous Textures" for the general practitioner and student as well as the specialist, the contents of the work being comprehensive, complete, and practical in the best sense.

In point of excellence of press-work, paper, binding, and particularly the handsome chromo-lithographic plates it is unsurpassed among modern medical works, and its very moderate price renders it easily obtainable by every physician and student.

THE INTERNATIONAL MEDICAL ANNUAL AND PRACTITIONER'S INDEX FOR 1896. Edited by a corps of thirty-seven department editors—European and American—Specialists in their several departments. 728 octavo pages. Illustrated. $2.75. E. B. Treat, Publisher, 5 Cooper Union, New York.

The fourteenth yearly issue of this valuable one-volume reference work is at hand; and it richly deserves and perpetuates the enviable reputation which its predecessors have made for selection of material, accuracy of statement, and great usefulness. The corps of department editors is representative in every respect. Numerous illustrations, many of which are in colors, makes the "Annual" more than ever welcome to

the Profession, as providing, at a reasonable outlay, the handiest and best yearly resume of Medical Progress yet offered.

Part I., comprises the New Remedies, together with an extended Review of the Therapeutic Progress of the Year.

Part II., includes a number of recent articles by eminent authorities: How to determine the parasite of malaria; The Diagnosis of toothache and neuralgia; The Remedial value of Cycling; Sensory distribution of spinal nerve roots; Angio Neurosis; Life Insurance; and Roentgen's method of Shadow Photography, illustrated.

Part III., comprising the major portion of the book, is given to the consideration of New Treatment. It covers 500 pages and is a retrospect of the year's Medical and Surgical Progress.

The Fourth, and last part, is made up of miscellaneous articles, such as Recent Advances in Sanitary Science; New Inventions in Instruments and Appliances; Books of the Year; etc.

The arrangement of the work is alphabetical, and, with its complete Index, makes it a reference book of rare worth.

In short, the "Annual" is what it claims to be—a recapitulation of the year's progress in medicine, serving to keep the practitioner abreast of the times with reference to the medical literature of the world. Price remains the same, $2.75.

DON'TS FOR CONSUMPTIVES. By CHARLES WILSON INGRAHAM, M. D.

This book outlines to the physician and the pulmonary invalid a method of general management that offers the most substantial and permanent benefit.

It indicates to the pulmonary consumptive how he shall proceed in order to get the full benefits of the curative forces of nature.

It tells to those who have a hereditary tendency to tuberculosis, those who have recovered from the disease, and those who will recover, how they may create and maintain an immunity against tubercular contagion. It educates the pulmonary invalid in the details of how to destroy all infectious matter generated by the disease that he may not be of the slightest danger to the health of family, friends, or the public.

It gives valuable information wherewith the consumptive may easily obtain a thorough understanding of the various effects of tuberculosis upon the system, and shows him how, with such understanding, he may co-operate with his physician in an intelligent manner in the general management of the disease. If the same care was exercised in the treatment and management of pulmonary consumption, as is the case with typhoid fever and pneumonia, etc., who can deny that cases of tuberculosis would be few and far between. It is a good and useful book.

ELECTRICITY IN ELECTRO-THERAPEUTICS. By EDWIN J. HOUSTON, Ph.D., and A. E. KENNELLY, Sc. D. New York: The W. J. Johnston Company, 253 Broadway. 1896.

Electricity has recently made such rapid strides in application to both surgical and medical practice, that recent information, concerning electrical developments in apparatus and in theory, is much in request by those interested in the healing art. This little book will meet a growing demand, which exists not only on the part of general medical practitioners, but also on that of the general public, for reliable information respecting

such matters in the physics of electricity applied to electro-therapeutics, as can be readily understood by those not specially trained in electro-technics. The book contains something over 400 pages, is well illustrated and clearly printed. It will prove very serviceable to the public.

DIET FOR INFANTS AND CHILDREN IN HEALTH AND IN DISEASE. By LOUIS STARR, M. D. Philadelphia: W. B. Saunders, 925 Walnut Street. 1896.

This little work is divided into the following seven sections:

A. Diet from birth to the end of the seventh month.
B. Diet throughout the eighth and ninth months.
C. Diet for the tenth, eleventh and twelfth months.
D. Diet from the twelfth to the eighteenth month.
E. Diet from the eighteenth month to two and a half years.
F. Diet from two and a half to three and a half years.
G. Diet in childhood.

This is a book that will be of use to physicians every day. It is neatly printed and substantially bound.

NEW TRUTHS IN OPHTHALMOLOGY, as Developed by G. C. SAVAGE, M. D., Professor of Ophthalmology in the Medical Department of the Vanderbilt University, Ex-President Nashville Academy of Medicine, etc. Fifty-eight Illustrations. Third Edition. Published by the Author. Printed at the Publishing House of the M. E. Church, South, Nashville, Tenn. 1896.

This work contains nearly three hundred pages, and is divided into eleven sections. This is the third edition, thus showing that the author's services have been appreciated. It contains many new truths that are of great practical value. Part III. contains brief descriptions of fine operations, which are the author's either by device or modification. The book is well printed and bound.

Literary Notes.

The April number of The Forum will have for its leader a noteworthy paper by Senator Sherman entitled "Deficiency of Revenue the Cause of our Financial Ills." The Senator contends that the President and Secretary Carlisle mistake the cause of our present financial condition in attributing it to the demand for gold for United States notes, and he thinks that the facts which he submits in his paper will convince every one that the true financial policy is to supply the Government with ample means to meet its current expenditures and to pay off each year a portion of the public debt. He criticises the Wilson bill very severely, declares that it has produced a deficiency every hour since its enactment, and attributes our financial ills—especially the continued exports of gold—solely to its workings. He says that he prefers a law that will impartially protect and encourage all home industries, and he considers the McKinley law infinitely better than the Wilson law. The disposition of silver certificates he believes to be a serious problem, and thinks that so long as they are maintained at par with gold there can be no injustice in paying out silver dollars for them. But he regards the free coinage of silver as the most dangerous policy. In conclusion, he thinks that our present financial system—when cured of a few defects—founded upon the bimetallic coinage of gold and silver maintained at par with each other; with free national banks established in every important city in the United States,

issuing their notes secured by United States bonds or some equivalent security, and redeemable on demand in United States notes; and the issue of an amount of United States notes and Treasury notes equal to the amount now outstanding, always redeemable in coin and supported by an ample reserve of coin in the Treasury, not to be invaded by deficiences of revenue, and separated by the sub-treasury system from all connection with the receipts and expenditures of the Government—such a system would, in Senator Sherman's opinion, make our money the best in the world.

The British magazines and reviews contain a great deal of interesting and instructive matter of which no reader can afford to be ignorant. It is the mission of Littell's Living Age to select the very best of all this literature and serve it fresh to its readers every week. This thin, modest, fawn covered weekly volume of 64 pages, is in fact the largest as well as the richest of American magazines. A single year's issues aggregate 3328 double-column pages, forming four octavo volumes of 824 pages each—more than double that of the most pretentious monthly. and its quality is as good as its quantity is abundant.

The March issues give the usual feast of good things, brought from the fields of history, biography, discovery, travel, romance and poetry. Among the many valuable papers which appear in these numbers may be mentioned "John Stuart Blackie," by A. H. Miller; "Our Limited Vision and the New Photography," from the *London Lancet;* "Reflex Action, Instinct and Reason," by G. Archdall Reid; "A Sister-in-Law of Mary Queen of Scots," from *Blackwood;* "The Two Dumas" by C. E. Meitkerke; "The Evolution of Editors," by Leslie Stephen; and "Florian," by Augustus Manston.

The new subscription price of six dollars a year, instead of eight, brings the magazine more easily within the reach of all who desire to keep abreast of the best, but who cannot afford to pay for all.

Littell & Co., Boston, are the Publishers.

Appletons' Popular Science Monthly for April, 1896.—The names of David A. Wells, Herbert Spencer, and Cesare Lombroso on the cover of Appletons' Popular Sdience Monthly for April at once arrest our attention. Mr. Wells in this number brings his account of Taxation in Literature and History down through the middle ages, and shows that squeezing the Jews was then the makeshift for a financial system with many European potentates. Mr. Spencer concludes his series of papers on Professional Institutions with a general review of the subject, calling attention to the necessity in past times of domination that now appears irksome to many and showing how useles are statutes that do not conform to the natural laws of society. Prof. Lombroso has written for the Monthly an account of The Savage Origin of Tattooing, showing also its development among criminals. Pictures of the highly decorated bodies of three malefactors illustrate the text. As especially timely topics we note The X Rays, on which Prof. John Trowbridge, of Harvard, has an illustrated article, and War and Civilization, which is treated in a thoughtful and temperate vein by W. D. Le Sueur. Surgeon-General Sternberg contributes a splendid record of The Practical Results of

Bacteriological Researches. Other illustrated articles are Tropical Fruit Trees, by Bertha F. Herrick, and Quacks and the Reason of Them, by Dr. A. Cartaz. Prof. William Z. Ripley concludes his discussion of Acclimatization, throwing further light upon the possibilities of colonizing tropical regions by the white race. Prof. W. R. Newbold, in an interesting study of Hypnotic States, Trance, and Ecstasy, shows the essential relationship of these conditions. The educational value of The New Geography, which describes processes as well as their results, is pointed out by Alfred P. Brigham. Under the title The Ways and Means of Ants there is a readable bit of description by Norman Robinson. The Social Function of Wealth is discussed in a suggestive manner by M. Paul Leroy Beaulieu, and the list of articles closes with a Sketch of Benjamin Smith Barton, the old Philadelphia doctor and botanist, which is accompanied by a portrait. The meaning of a "liberal" education, the operation of necessary conditions in social affairs, and what quackery may be expected to do with Rontgen's discovery are the subjects considered in the Editor's Table. The minor departments are well filled as usual.

New York: D. Appleton & Company. Fifty cents a number, $5 a year.

The Future of the Nation.—This country has a great future. It also has a great past. The recent enumeration of the Monroe Doctrine and its probable application in the near future will have a most potent influence in determining the destiny of these United States. But far reaching and powerful as that influence will certainly be, it can never rank in importance with that famous Declaration which made this a free people and these States a united and sovereign power.

The scenes of conflict and triumph in the troublous times of 1776, 1812 and 1861, are almost venerably regarded by our people. New Orleans, Montgomery, Atlanta, Kennesaw Mountain, Abbeville, Raleigh, Durham, Petersburg, "The Crater," Richmond, "The Wilderness," Fredericksburg, Chancellorsville, Washington—all these names recall memorable historical events which have made our past and shaped our future course.

A beautiful little pamphlet entitled, "From the Pacific to the Atlantic," an excellent brief outline sketch of many of the great conflicts of our past wars, together with an interesting short description of the most picturesque and historic part of our country, may be secured free of cost, by addressing K. S. Finch, Agent of the Seaboard Air Line, at Charlotte, on whose great through line between the East and the Pacific Coast, the above and other points of great historical interest are located.

The Atlantic Monthly for April contains the opening chapters of The Old Things, a four-part story, by Henry James, one of his delicate and yet dramatic delineations of character.

Dr. T. C. Mendenhall, formerly at the head of the United States Geodetic and Coast Survey, contributes an able article upon The Alaska Boundary Line. Dr. Mendenhall was one of the government commissioners concerned in determining this line.

Lafeadio Hearn, at the request of the Editor of the Atlantic, seeks to

set forth the great consequences of the Chinese-Japanese war and its bearing upon western civilization. His article, China and the Western World, will be read with wide-spread interest.

The second paper in the series of Race Characteristics in American Life is by Professor Shaler of Harvard University, on The Scotch Element in the American People.

The Presidency and Senator Allison is the third paper in the series upon Presidential Candidates. Some Memories of Hawthorne, by his daughter, tell of Hawthorne's life in Italy. Old-Time Sugar-Making, by Rowland E. Robinson, is a delightful sketch of a New England industry of a generation ago. Alice Brown gives a charming account of a visit to the town which stood for Cranford in Mrs. Gaskell's classic tale.

The second paper upon The Case of the Public Schools is by Fred. W. Atkinson, Principal of the High School, Springfield, Mass. Mr. Atkinson prepared himself for teaching in the public schools at Harvard University, at various German Universities, and the Sorbonne, and has given a life of study to the consideration of pedagogical questions. His paper will have the suggestive title, The Training of The Teacher.

Other features will be An Archer's Sojourn in the Okefinokee, by Maurice Thompson; A Son of the Revolution, a short story by Octave Thanet; poems by J. Russell Taylor and Stuart Sterne; Book Reviews, and the usual departments.

Houghton, Mifflin & Co., Boston.

Lippincott's Magazine for April, 1896.—The complete novel in the April issue of Lippincott's is "Flotsam," by Owen Hall. The scene shifts from England to Australia, following the fortunes of a heroine who through a severe experience at sea loses track of her past life, so that her identity is established only after many months and much difficulty.

"The Vivisectionists," by Carolyn Wells, describes the conduct of a novelist whom no scruples deter in the search for literary material. Lieutenant Thomas H. Wilson, in "Between Reliefs," tells of a not wholly unrighteous revenge.

"On the War-Path with Kit Carson," by William Thomson, is a true story, and so probably is "Dreaming Bob," by Dr. Charles C. Abbott. The incidents of the first occurred on the California trail in 1850, those of the other more recently in New Jersey.

"The Drama of One Hundred Acres," by Calvin Dill Wilson, is an imaginative sketch of the development of an Ohio farm. Ellen Duvall, in "An Old-Testament Drama," comments on the tale of Naaman the Syrian.

I. J. Wistar, in a brief but very solid article on "Penal Administration in Pennsylvania, "tells what has been done and what may or should be done in the way of prison reform.

O. L. writes of "Holy Week in Mexico," and Cleveland Moffett of "Paris Swindles." R. G. Robinson recalls the case of "An Expensive Slave" in Florida, who caused the war of 1835-'39 and the loss of 1500 white lives.

The poetry of the number is by Susie M. Best, Mary Bradley, and Madison Cawein.

An illustrated supplement, by Annie Hollingsworth Wharton, treats

of "The Washington's in Virginia Life," and tells much about the early life and legendary love affairs of the Father of his Country.

The Review of Reviews is almost indispensable to the general reader who wishes to keep abreast of the rapidly developing international question of the day. In the April number there is a full and able editorial discussion of the complicated African situation, which is described as "the drama of 'Europe in Africa.'" The mixed interests and motives of England, Russia, Italy and France in the Dark Continent are clearly set forth. Russia's general attitude toward the European powers is also discussed, and the editor comments briefly on America's relations with Spain, our interest in the Cuban revolution, and the present status of the Venezuelan boundry dispute. In addition to this editorial treatment (in the department entitled "The Progress of the World") the Review presents a remarkably complete survey of the Cuban situation by Murat Halstead, a summary of the best current thought in England on the subject of international arbitration, and a vivid account of the relief work now going on in Armenia. In short, the Review of Reviews records a month's activities in both hemispheres.

The April number of the North American Review opens with a noteworthy article by David A. Wells, entitled "Great Britain and the United States; Their True Relations," Mayo W. Hazeltine thoughtfully discusses "Possible Complications of the Cuban Question," and Prof. Frederick Starr, of the University of Chicago, treats in an entertaining paper of "Pygmy Races of Men." The anniversary of President Lincoln's death is signalized by Seaton Munroe, who graphically dwells on "Recollections of Lincoln's Assassination," and the fourth instalment of "Future Life and the Condition of Man Therein," by the Right Hon. W. E. Gladstone, serves to accentuate the interest taken in this remarkable series of articles. "Problems of the Transvaal" are ably considered by Karl Blind. while T. A. Rickard, State Geologist of Colorado, vividly portrays the present "Gold Mining Activity in Colorado." The widespread effect of "The Reines Liquor-Tax Law" is amply set forth by the Hon. J. Raines, the author of the bill. Admiral A. H. Markham, R. N., contributes a thoughtful article on "The North Polar Problem," and a political symposium of much timeliness entitled "Governor Morton as a Presidential Candidate" is participated in by ex-Senator T. C. Platt, the Hon. Chauncey M. Depew, ex-Senator Warner Miller, Edward Lauterback, and C. W. Hackett, Chairman of the New York State Republican Committee. Other articles considered are: "The Regeneration of Russia," by Arnold Watson Sherman; Two Republics or One?" by Henry Litchfield West, and "Birds and the Atmosphere," by A. C. Baines.

The General of the Army, the General commanding the U. S. Corps of Engineers, Vice-Pres Webb of the New York Central, and John Jacob Astor, compose The Cosmopolitan Magazine's Board of Judges to decide the merits of the Horseless Carriages which will be entered in the May trials, for which The Cosmopolitan offers $3,000 in prizes. This committee is undoubtedly the most distinguished that has ever consented to

act upon the occasion of the trial of a new and useful invention. The interest which these gentlemen have shown in accepting places upon the Committee is indicative of the importance of the subject, and that the contest itself will be watched with marked interest on both sides of the Atlantic.

Frank Stockton's new story, "Mrs. Cliff's Yacht," which begins in the April Cosmopolitan, promises to be one of the most interesting ever written by that fascinating story-teller. Readers of "The Adventures of Captain Horn" will find in "Mrs. Cliff's Yacht" something that they have been waiting for.

Our Indians.—"Our Indians" is the title of a strong article by Hon. Hoke Smith, Secretary of the Interior, published in The Youth's Companion of March 26.

Perhaps there is no national theme which arouses more quickly the sympathies of all fair-minded Americans. The Indian who once had complete liberty to hunt and occupy this fair land has found the United States Government a master whom he cannot understand. Secretary Smith gives much valuable information about the present condition and prospects of the Indians, their increasing numbers, their education, and indicates the position of the present national administration toward them. He closes the article by saying: "While I have not criticised the action of our forefathers and of our fathers in the treatment of the Indians, I urge without hesitation that among this people can be found a field for missionary work as worthy of Christian zeal as in those countries far away from our own."

This article is one of a Series by American Statesmen, appearing in The Companion, including articles by Hon. Thomas B. Reed, Hon. H. A. Herbert, Secretary of the Navy, and Hon. J. Sterling Morton, Secretary of Agriculture.

The April number of Scribner's Magazine contains a very unusual number of articles of immediate interest in connection with current events of the first importance. The leading article is a sympathetic review of the late Lord Leighton, P. R. A., by Cosmo Monkhouse. The illustrations, which are of remarkable richness and beauty, were selected with the assistance of the artist himself, and the whole article was completed before his death on January 25. It is the most complete record of his artistic career that has, or will be, furnished by any periodical. Another article of great contemporary interest is "The Quarrel of the English Speaking Peoples," by Henry Norman, the correspondent of the London Chronicle, whose telegrams from Washington were so influential in modifying British opinion on the Venezuelan question. Mr. Norman's article is a very clear exposition of the present temper of the British people, and it also points out with definiteness the line along which the peaceful solution is to be expected. He is, of course, an advocate of the doctrine of arbitration, and he also believes that the United States would simplify relations in future if it should definitely, through Congress, define the Monroe Doctrine as it is accepted by the Government. Mr. Norman closes with an enumeration of certain domestic problems that press upon the attention of the United States.

Fever Nursing and the Nursing of Contagious Diseases.

The Annals of Hygiene, for March, publishes, under the above heading, a lecture by Dr. H. A. Arnold Ardmore, Pa.

The subject is handled in a simple, natural manner, unadorned by superfluities or technicalities.

He starts in by describing one of those cases, so often met with, in which the fever process gets a weeks start before the family or friends recognize the fact that something is wrong. Then follows the discovery of fever, also a battle between contending forces—*destruction* on the one side, *reconstruction* upon the other.

The sick room is next described as being free from all annoyances, well ventillated, light and cheerful. The nurse with soft hands and low, sweet voice, polished manners and perfect seif-possession is well described in the typical Southern mammy who, "when she rubs, always brings the misery straight along out."

Diet next receives attention, and is summed up in easily digested liquid or semi-solid foods frequently administered in small quantities, served in such an attractive manner as to be simply irresistable.

Under *Cleanliness of Person and Bedding* reference is made to asepsis and antisepsis, and the prophesy ventured that "the prolongation of human life will find its accomplishment in a closer attention to cleanliness of food and person.

Sponging, prevention of bed sores, disposition of discharges and the beneficial effect of massage are each taken up in the order mentioned.

Following these general remarks, applicable to all forms of fever he next takes up the nursing of typhoid fever as an illustration of the nursing of special diseases in the following language:

It is just nineteen days since the illness began, and ten days since treatment was instituted. We have been carefully and painstakingly following the line of nursing just described, and our patient is fairly strong, and has little to complain of except weariness and enforced confinement to bed. We congratulate ourselves, and are correspondingly hopeful. As evening approaches the pulse bounds upward, and the fever increases; delirium manifests itself and familiar faces are not recognized; thumb and finger are busily engaged with excoriated lip and spongy gums until, perhaps, a tooth is forcibly withdrawn and handed to the anxious nurse. Our patient has a hot, dry skin, and his restless tossing is varied by persistent efforts to get out of bed. The vague fancies that find lodgement in his unbalanced brain, awaken a wild delirium, bordering upon frenzy. His tongue is parched, and the dry, shrunken lips disclose teeth that are so covered by offensive sordes that their pearly hue is completely lost to sight. His temperature is pronounced to be 105° F What is to be done?

To assist the action of the antipyretic medicine ordered, we will give him a cold sponging or put him in a wet pack. We will carefully remove the offensive matter from teeth and tongue by means of lemon juice, or vinegar and water. We will frequently moisten the mouth and tongue with glycerin and water. Presently our patient grows quieter, the skin moistens; the pulse loses its hard, tense character; drowsiness manifests itself, and sleep follows; and as we watch the hours go by we praise the means that enable us to thus bring rest to the weary.

Now comes the period when life hangs in the balance. Husband your strength, oh, tired watcher, and secure the much needed rest, that you fail not in this trying hour. Have a competent substitute fill your place, while you enjoy a breathing spell in the open air, also sufficient refreshing sleep.

With the subsidence of fever we see its direful effects. The strength of dilirium is gone, and in its stead we have prostration, utter and complete. This is the time for predigested foods. This is the time for alcoholic preparations which, by their absorption without digestion, both nourish and stimulate.

Convalescence.—As hope begins to fail, and the heart sinks, we are cheered and rewarded by seeing the fruits of our labors. The intellect clears, the eye brightens, the digestion improves, sleep comes without solicitation, and the appetite becomes immoderate. Indeed, our patient is clamorous for solid food. He complains bitterly of the sloppy foods he has been getting, and asks for bread—but be careful lest you "give him a stone." Many a loved one has been rescued from the jaws of death, only to receive his quietus, in the shape of a piece of cake, an apple, or a piece of hard crusted bread from some sympathetic, over-considerate, misguided, ill-advised, meddlesome *friend*, who thinks "it is too bad to keep starving him by giving him nothing but milk," and slyly administers the coveted but forbidden article of food, which bursts its way through the ulcerated bowel, and adds another victim to the *dreadful malady.*

When I tell you that the death-rate of typhoid fever has been reduced more than 50 per cent. within the last half century, you will realize the advantages of intelligent co-operation between physician and nurse.

The balance of the article deals with contagious diseases, and closes with the injunction: "Do not undertake or assume too much. When a doubt arises, always let the physician settle it. Do not think it implies a want of ability if you find it necessary to ask for instructions. The doctor's confidence in you will increase if he sees you show an anxiety to make this auxiliary of medicine contribute its full share to the accomplishment of the cherished desire of every honest physician—the speedy restoration to health of those confided to his care.

Poisoning by Stale Eggs.

Cameron (Dublin Medical Journal) has reported the occurrence of vomiting and purging in seventy-four nuns and girl pupils in the boarding school attached to a convent in Limerick following a dinner at which mutton and a custard composed of eggs, milk, cornflour, and sugar were eaten. The cornflour was supposed to contain arsenic, but analysis showed it to be free from poison of any kind and to be of good quality. The sugar also proved to be pure. No other constituents of the meal could be obtained. The vomit and the stools were intensely green from the presence of ordinary poison. The viscera of two patients that had succumbed also were examined, but no poison was found. Ptomaines were found present, but in small quantity. The milk used had been boiled, and the meat was above suspicion. The eggs, however, were not fresh, and one presented a reddish-brown colour, and was thought to be bad. Some of the custard given to pigs induced severe diarrhœa.

The Diagnosis of Gastric Carcinoma.[1]

By Allen A. Jones, M. D., Instructor in Practice and Clinical Instructor in Medicine, Medical Department, University of Buffalo.

The symptoms of gastric carcinoma depend in a measure upon the location of the neoplasm. If it arises at the cardia dysphagia and regurgitation usually occur; if in the fundus there may be few local symptoms, or pain and vomiting may be present: if at the pylorus, gastrectasia with its attendant symptoms commonly results. Sometimes the red blood cell fall as low as 1.000,000 per cubic millimeter, and many megalocytes, microcytes, and macrocytes are seen: normoblasts are also present in some cases of the pernicious type of anemia.

Physical examination may detect a tumor with gastrectasia. The chemical examination of the stomach contents usually shows an absence of free hydrochloric acid, although it may be present. Lactic acid is present in most cases with absent hydrochloric acid especially upon ordinary diet, and in many cases after the Boas test meal consisting of a tablespoonful of oatmeal flour to a litre of water; the stomach being washed clean at night, and this test meal left in until morning, when it is withdrawn. In some cases, however, lactic acid is not present. Lactic acid-forming microorganisms are present in abundance in the stomach with carcinoma, and the Faden bacillus is often found. Under normal conditions the rennet-ferment may be present in dilutions up to $\frac{1}{40}$, and the rennet-zymogen up to $\frac{1}{150}$. In diseases of the stomach, attended by little or no organic change, the zymogen may be present up to $\frac{1}{60}$ to $\frac{1}{150}$, although with an absence of hydrochloric acid the ferment may be reduced $\frac{1}{15}$ to $\frac{1}{5}$. In chronic gastritis and carcinoma the ferment may be entirely absent, while the zymogen is markedly diminished; in the former disease as low as one-third or lower, according to the extent of the disease. Therefore the amount of zymogen present affords some information as to the existence of organic disease. The gastrodiaphane, devised by Max Finhorn, assists in diagnosticating malignant disease of the stomach. Where the growth thickens the anterior wall its transparency is diminished, and a dim light is seen in that situation, whereas over the other parts of the illuminated stomach the light is transmitted with intensity. Dilatation of the stomach is discerned with great certainty by the use of this valuable instrument.

1. Abstract of a paper published in the Medical News, New York. Feb. 29, 1896.

The Importance of Starch as an Article of Human Food.

Sir William Roberts, M. D., F. R. S., calls attention to the importance of starch as an article of human food—an importance which has scarcely been duly recognized. He says that it is probably not too much to say that fully two-thirds of the food of mankind consists of starch. Taking this fact into consideration, it is not to be wondered at that the profession view with alarm the increasing number of people that cannot eat starchy food on account of a deficiency of amyolytic ferment in the digestive juices of the alimentary canal. This has given rise to an enormous demand for diastatic ferments as artificial digestors. The latest of these is "Diastase-Stearns," which consists of a high grade of Pancreatic Diastase taken from the pancreas of the hog by a new and improved process.

Plans for Delivery of Occiput-Posterior Positions.

Dr. Stanley P. Warren, Portland, Maine, read a paper before the Lister Club, of that city, upon this subject, (Am. Journal of Obstetrics, March, 1896,) of which the following is a brief summary:

Out of five hundred cases of labor noted in his obstetrical record twenty five were found to be of the third position and two of the fourth position. The position assumed on the paper is that successful delivery of these cases depends upon a timely recognition of the location of the occiput. By timely is meant during any of the last days of pregnancy, just preceding labor, or, if labor has already begun, before the end of the first stage, while the fetus is still within the unruptured membranes and freely moveable. Experience, both as principal and counsel, compells the opinion that in all cases when there is still room to pass the hand by the head, forceps should never be used at the brim until the sterilized hand has been passed high enough to feel at least a ear and thus make the position sure. Both common sense and expediency teach that the first duty of the obstetrician is to find out the position.

With occiput posterior, in the first stage, the various plans of delivery are: 1st, prophylactic posture of the mother, the genu-pectoral position; 2d, manual version forward of the head, followed by forceps, if indicated; 3d, podalic version; 4th, temporizing as long as possible in waiting for the head to rotate voluntarily, and forceps when contractions are ineffectual, and 5th, forceps at the brim. Of these five, the second is the best, all things considered.

In the second stage, the plans for delivery are the following: 1st, flexion by pressure of the finger upon the forehead, and pulling down of the occiput by a vectis or one blade of the forceps—a procedure rarely successful; 2d, rotation forward with the forceps—risky and possible only for the most skillful operator; 3d, reversed forceps—useful only to produce flexion; and 4th, forceps—which will be the ordinary method. Only a strong inflexible instrument should be used, and advantage should be taken of the axis-traction principle. as illustrated in the Tarnier-Lusk forceps, or the traction rods of Reynolds.

Strangulated Inguinal Hernia.

The American Journal of Obstetrics and Gynecology, for March, contains an article by Dr. Weller VanHook, of Chicago, on Strangulated Ingninal Hernia of a vermiform appendix, which had undergone cystic dilatation. The patient was, on a certain evening, unable to reduce the hernia, and on the following day sent for his family physician, who, under chloroform, apparently reduced the hernia. Severe abdominal pains told of incipient peritonitis, and an operation by Dr. VanHook revealed a quantity of mucous masses in the hernial sac, which had been extruded from the dilated appendix. A large opening at the end of the appendix indicated that it had been ruptured in reduction, thus giving rise to the peritonitis. The appendix was removed and the peritoneum sewed over it. Capillary drainage freely used in every direction brought away large quantities of serous fluid for two days, and the patient eventually recovered.

The occurrence of cystic dilatation of the appendix has been noted

in thirty-two cases which Dr. VanHook has collected from the literature, including an unpublished case, an operation upon which, by Mr. Treves, was witnessed by the author of the paper at the London Hospital, a case of Prof. Hektoen included in the article, and the case operated upon by VanHook.

Hernia of the vermiform appendix alone is much rarer than hernia of the appendix with the cæcum. Dr. VanHook's case makes the ninety-ninth hernia of the appendix to be recorded in the literature,

Inflammation of a herniated appendix occurred in thirty cases collected by Bajardi.

Dr. VanHook has made a careful study of the literature bearing upon this case, which in each of its three chief characteristics is extremely rare, and which, in the combination of these features, is wholly unique.

Preventive Treatment of Inflamed Breasts.

Brindeau points out that galactophoritis plays a great part in the causation of mammary abscess. The inflamed breast may have been infected through the blood or through the lymphatics, but most frequently the poison reaches the gland through its excretory ducts. Mammary abscess is the homologue of the abscesses in surgical kidney infected through the ureter. In galactophoritis the staphylococcus albus and aureus are found, but both species exist in healthy mammary ducts. Infection reaches through excoriations of the nipple, through the hand of patient, nurse, or doctor, fouled with the lochia, or most frequently, direct from the child, as its mouth is full of microbes and coryza, or more severe infantile disorders render its saliva septic. There is also, not unfrequently, inflammation of the child's fingers, at the roots of its nails. About the second week the smyptoms appear—the well-known earlier signs of inflamed breast. On pressure of the nipple milk exudes from some of the ducts, but pus from others. The pus is, of course, yellower and more tenacious than the milk should be tested by absorbent wool, which takes up the largest drop of milk immediately, but cannot absorb pus. The fluid, when expressed from the duct, lies on the surface of the wool in the form of a greenish-yellow drop. Sometimes a drachm or more can be expressed.

The process should be repeated twice or thrice daily, and the nipple carefully washed afterwards with an antiseptic solution. The child must not be fed from the inflamed nipple. If the expression of the pus be neglected abscess will follow. Sucking from an inflamed nipple does great harm to the infant. Gastro-enteritis, pemphigus, and conjunctivitis, are undoubtedly caused by the ingestion of pus with milk. On the other hand, Brindeau insists that purulent conjunctivitis in infants is a direct cause of infection of the mother's mammary ducts.

"Coca" has maintained its reputation as a powerful nerve stimulant, being used with good results in nervous debility, opium and alcohol habit, etc. The highly variable character of the commercial drug makes it uncertain however. Robinson's Wine Coca (see page 453) we believe to be a uniformly active article, it being prepared from assayed leaves, the percentage of Cocaine being always determined by careful assay.

Remarks on Abdominal Ptosis, Viscero-Ptosis, Enteroptosis or Glenard's Disease.

Dr. Hugh M. Taylor, Richmond Academy of Medicine and Surgery, March 24th, 1896, said, the occurrence, very recently, in his practice of two cases of displaced kidney with well marked renal or Dietl's crises, awakened an interest in that curious and little understood condition—abdominal ptosis or displacement or prolapse of some one or all of the abdominal viscera. A due appreciation of the clinical importance of viscero-ptosis has been increasing since Glenard's study of the subject.

Recently Mr. Treves has brought it prominently to the attention of the profession and considered at length, the surgical aspect of its treatment.

The cause (or causes) of viscero-ptosis is somewhat a mystery. It is met with more frequently in women, notably women who have borne children. Pregnancy, therefore, seems to occupy an important ætiological relation. Prolonged vomiting from any cause, may be a causative factor, as may also injuries, prolonged coughing, straining, lowered vitality general relaxation and absorption of fat. However induced, abdominal or visceral-ptosis is attended by relaxation of the abdominal muscles, and elongation of the ligaments supporting or holding in position the abdominal viscera. This stretching of the ligaments and prolapse of the viscera may be limited in extent or occur to such a degree as to give rise to that common condition, movable, floating or displaced kidney or the less common condition of floating liver, or the perhaps, more common but less frequently recognized, displacement of the hepatic flexure of the colon and with it the pyloric end of the stomach, liver, etc.

This anatomic pathological change, culminating in viscero-ptosis, usually begins in the right colic angle, and is attended by a gradual descent of the hepatic flexure of the colon until it finally occupies a lower plane in the abdominal cavity. With this descent of the colon, the pylorus is displaced downward and flexed, its lumen contracted, the contents of the stomach are prevented from passing readily into the duodenum, accumulation and decomposition of the stomach contents results, and entails as a further consequence pain, nausea, vomiting, fermentation, dilatation of the stomach, and a long continued train of gastric disturbances which are unsuccessfully treated by many physicians in many ways before the true causative agent is recognized. Flexion and abstruction to the passage of the duodonal contents to the jejunum, a fecal stasis with its many injurious consequences may result from prolapse of the right-angle of the colon, and traction on the duodenum, and to the stomachtic we may have intestinal disorders added.

A displaced liver and bile tract, may interfere with the latter's function as a drain tract. Forty ounces of bile are discharged per diem; even a partial obstruction by flexion of this tract may favor inspissation, cholelithiasis, cholangitis, or cholecystitis and to a greater or less extent, possibly cholemia.

Many patients with viscero-ptosis suffer no inconvenience whatever. A majority of those so affected, if they are troubled at all, are so little affected that they are not deprived of comparative good health and comfort. But a good many more than we have in the past so credited, are rendered invalids in this way. In the main such patient's standard of

health is below par; they lose their appetite, flesh and strength, become neurasthenics, experience of sense of weight or dragging in the back and abdomen. When in the upright posture they suffer pain, nausea, vomiting and numerous vague nervous manifestations and there may be alternate attacks of diarrhœa or constipation, the latter amounting in exceptional instances almost to obstruction.

This condition may induce neurasthenia or on the other hand if the ptosis abdominalis occurs in a neurasthenic patient, the discomforts incident to the ptosis are very much intensified.

In not a few instances the condition of chronic invalidism is so irremediable that operative interference is the only curative resource we can offer.

Celiotomy and shortening by suturing the elongated ligaments, has furnished a sufficient number of successes to stamp it a warranted surgical procedure.

Exagerated viscero ptosis is typified in floating displaced or movrble kidney or liver; the former (floating kidney) a common occurrence; the latter (prolapsed liver) very much less so and less serious. Few practitioners of experience who will look for them, will fail to find quite a number of cases of displaced kidney, happily a very large majority of such cases are neither discomfort or disease producers.

The experience of most observers accord with that of Mr. Treves and sanction the classification of displaced kidneys clinically under three heads.

I. Patients who have displaced kidneys, do not know it and suffer no inconvenience whatever from it. This type represents by far the largest class.

II. Patients with displaced kidneys, who may or may not know of it, who suffer from gastro-intestinal discomfort and perhaps more frequently a long train of vague neurotic disturbances.

III. Patients with movable kidney, who are the subjects of occasional or frequent mild or severe attacks of Dietl's or renal crises.

The first, the largest class are never, the second may be, the third with few exceptions must be legitimate subjects for operative measures or nephrorhaphy. In some instances the movable kidney is attended, all of the time with gastroenteric and neurotic manifestations and only occasionally or from time to time with the condition of Dietl's or renal crises. This fact is well illustrated by a case now under his observation.

An unmarried woman from Eastern North Carolina has experienced for several years, several times a month, sometimes not for several months, violent paroxysmal attacks of pain focused in the right hypochondriac or lumbar region and attended by persistent vomiting and subsequent local soreness for several days. For years she has been treated for gall stones and hepatic colic. Her appetite, digestion and nervous system has suffered seriously and obstinate constipation has been the rule. She has gradually lapsed into a condition of semi invalidism and neurasthenia. With the train of symptoms presented by this case in its beginning, few practitioners would have failed to associate the manifestations with some morbid condition of the gall tract, most probably choletithiasis, but at the present time the mobile kidney can be displaced from its nest and made to prolapse almost into the pelvis; and through the thin abdominal walls, its shape can be plainly outlined. The attacks are clearly typical

Dietl's or renal crises. This assertion is made with a due appreciation of the fact that we are not warranted in every instance in pronouncing a tumor associated with the above mentioned symptoms unmistakably a displaced kidney. Able clinicians record frequent diagnostic mistakes in this particular field.

The renal crises simulates closely, nephritic colic from stone, hepatic colic, or even acute intestinal obstruction, and from all of these a differential diagnosis must be made.

Nephrorrhaphy is clearly indicated in this case and will be performed first, because of the discomfort incident to the frequent renal crises, and second because of the long continued gastro-enteric and neurasthenic disorders.

There is a diversity of opinion as to what produces the renal crises. In the opinion of some, it is due to tortion or twisting of the pedicle and disturbed vascular and nerve supply. Another and perhaps, correct assumption, is that it is due to flexion and twisting of the ureter and daming back of the urine with over distension of the pelvis and calices of the kidney.

In the second case under observation the violent attacks of pain and vomiting were at first attributed by himself to gall stones in the gall bladder or cystic, duct as there was no jaundice. The kidney in the early history of the case, before it had wandered a great distance from under the surface of the liver, was mistaken for a distended gall bladder, there is now such a degree of prolapse that all obscurity in the diagnosis has been removed. No operative procedure has been contemplated in this case because of the extreme age, enfeebled condition of the patient, and because of a serious long continued chronic bronchitis. A year or more ago this patient had frequent attacks but had escaped for many months until within the past week or ten days. The recent attack ensued almost immediately after a very gentle manual examination of the displaced viscus and was obviously due to a twist of the pedicle brought on by the examination. The pain, vomiting, etc., incident to the attack were sufficiently severe to call for repeated doses of morphia for its relief and as usual in such cases there was persistent soreness for five or six days. Nephrorrhaphy is only contra indicated in this case by the age and feeble condition of the patient and the fact that the crises have been infrequent for the past six or eight months.

To ascertain the existence of ptosis of any of the abdominal viscera, an examination should be made with the patient in the erect or semi-erect position. On assuming the recumbent position, the organs gravitate back to their normal position. In extreme ptosis of the kidney, the viscus can be made to prolapse by instructing the patient to cough or by pressure of the examiner's hands.

To a very marked extent the discomforts incident to such a condition are relieved when the patient is lying down and to a limited extent they are ameliorated by mechanical support in the shape of abdominal binders.

When the patient is lying down nothing unusual is noticed in the appearance of the abdomen, but when the patient with general ptosis assumes the upright posture the upper portion of the abdominal cavity is preternaturally flat, the pelvis unduly prominent.

A better understanding of the clinical significance of abdominal

ptosis including that of the kidney would he thought widen the fielf of legitimate abdominal surgery and limit to some extent, the scope of dietetic and gastro intestinal therapy, and indicate the origin of not a few obscure neurotic disturbances.

Tubercular Disease of the Uterine Appendages and Peritoneum.

Dr. D. S. Fairchild, of Clinton, Iowa, read a paper at a recent meeting of the Western Surgical and Gynecological Society, on this subject, in which two cases were cited illustrating the approach of tubercular involvement.

In the first case the diagnosis of pyosalpinx was made and a laporatomy performed. On reaching the uterine appendages some disappointment was felt in not finding any apparent disease of the tubes. The ovaries were but slightly adherent, somewhat enlarged and covered in every part with granulative masses of a grayish white appearance were resistent, and gave the organ a strikingly roughened surface, due, as was believed, to tuberculosis.

Primary tuberculosis of the ovaries being regarded as a rare condition the pelvic organs, including the peritoneum, were as carefully examined as the circumstances would permit to discover, if possible, the existence of other involvement, but with negative results. A subsequent examination of the ovaries confirmed the first impression that they were tuberculous. An examination of the tubes failed to disclose any involvement of these parts. Three years later the patient manifested no other evidence of tubercular disease.

In the second case a diagnosis of tubercular disease of the tubes and ovaries, with extension to the peritoneum, was made. The condition which led the patient to consult Dr. Fairchild was the rapid filling of the abdomen with fluid which reached such a degree as to cause great distress. On opening the abdomen the right ovary was greatly enlarged, but comparatively free from adhesions. In removing the organ great care was necessary in securing the stump on account of the softened condition of the tissues. The left ovary was considerably enlarged, but not to the extent of the right. Adhesions to the broad ligament were easily separated with the fingers, but to secure the lacerated surfaces, which bled somewhat freely. it was necessary to introduce an over and over continuous catgut suture. The abdomen was thoroughly washed out with a sterilized normal salt solution, and closed. The right ovary weighed one and one half pounds; the left one half a pound. The progress of the case was uneventful. Appetite returned, and she gained markedly in strength. At the end of four weeks an exhaustive diarrhœa supervened, which, not withstanding every effort, proved fatal in four days.

In this case the walls of the tubes were infiltrated with small cells and at certain points the cells were massed, had undergone a degree of mucoid degeneration, and had become agglutinated together. The condition of coagulation necrosis rendered the safe ligation of the structures somewhat uncertain. Cheesy degeneration had not taken place in any part of the tubes or ovaries, hence the production of cells had undoubtedly been rapid. The extension of miliary tuberculosis to the peritoneum was followed by a rapid advancement of the process, and a prompt and rapid development of a serous exudation.

It was hoped that the operative interference would exercise a beneficial influence upon the tuberculous process, and the hope might have been realized had not the intestinal walls been so extensively infiltrated.

The woman had an old tuberculous ankle, and after the operation it was discovered she had a tubercular disease of the two upper lumbar vertebra.

Castration for Crime as Prevention and Curative Treatment.

Dr. J. M. Frazier, of Belton, Texas, read a paper on this subject before the Central Texas Medical Association, January, 1896, published in the Texas Medical Journal for March. He says:

Vice or crime from a psychological, sociological, medico-legal and moral standpoint may be appropriately considered a true disease, i. e., a variation from the normal healthy and usual course of action. Obedience to the laws and customs of his country, and a recognition of the rights of his fellows is an inherent, innate principle in the normal healthy mind. Crime presupposes either an inability to differentiate between a right and a wrong action, or knowing the difference a lack of neurotic, inhibitory, resisting force. The criminal tendency, predisposition, or diathesis, is hereditary.

Referring to the rapid increase of crime in recent years, and the inefficiency of present statutory enactments and penalties, Dr. Frazier suggests, and earnestly advocates *Castration* as a more radical, rational and scientific remedy. He claims that castration has a very grave alterative effect on the brain tissue of the individual castrate.

Among the domestic animals the radical alteration brought about by castration is a matter of common observation. The stockman who owns a vicious bull or stallion, castrates him at once, and thus converts him into a docile, tractable and useful animal.

The history of the eunuch of former times shows that he not only lost his licentiousness. but all feelings of manhood and equality as well, and grew fat from an easy conscience and a tranquil nervous system. The whole nature of the man undergoes a very radical change, so that the "lean and hungry Cassius," with a mind "fit for treason, stealing and spoils," becomes a fat, lazy, inoffensive nonentity from whom society shrinks, but feels no apprehension.

For all so-called sexual crimes the remedy is peculiarly appropriate, rational, scientific and just.

The proper and scientific remedy for a perverted sexual appetite is the radical removal of the means of gratifying the criminal desire.

The remedy should rationally be extended to a vast category of other crimes, and in some cases added to the punishment already provided for. The vicious and depraved of the confirmed and convicted criminal class should be deprived of the capacity to procreate in kind as a protection to the society of posterity.

Then, too, the best interests of the individual criminal are conserved and an opportunity given to reform; deprived of his mania to commit offense to his fellows, he is made a living, ever present, object lesson to others of like tendencies, and thus with man as a moral inhibitory force than a hundred capital punishments, or penitentiary convictions, usually the talk of a narrow circle for a few days, then relegated to oblivion.

The contemplation of a sure castration on conviction would have a much greater *deterrent* effect on the mind of one who contemplated doing a wilful murder, rape, arson, or robbery, or other grave offence, than any other punishment that could be devised.

Symphysiotomy.

In a clinical report of a case of symphysiotomy with comments read before the Tri-State Medical Association of Arkansas, Mississippi and Tennessee, Dr. E. E. Ellis of Dyersburg, Tenn., stated:

"As a comparison of this procedure and its alternatives will mention embryotomy, which gives us an exact mortality of one hundred per cent. to the child and a death rate to the mother of from five to twenty-five per cent. Personal observations correspond with the latter mark. The question confronts us 'Why do we hesitate to advocate and do symphysiotomies in the face of such convincing facts?'

"The great barrier is a fear that the ultimate results will be detrimental to the pelvis—a permanent mobility of the pubic symphysis. Results have proven this fear a groundless one. The essential to sucess is in recognizing the confronting obstacles and resorting to operation early, and then in re adjusting the divided bone firmly and keeping them immovable for seven or eight weeks. There should be no mortality if the above is complied with. The case referred to in practice was that of a small, strumous subject, twenty five years of age, with a generally contracted pelvis. She had a craniotomy performed upon a foetus fifteen months previously. When the case was reached, forceps were applied but of no avail. An open symphysiotomy was performed, forceps re-applied, and the child easily extracted. The separation of the bone was just two inches. The mother and child did well, though the woman was previously much exhausted, pulse one hundred and thirty, temperature a hundred and three, which proved to be connected with malaria. The conclusions are that in face of present statistics and personal experience, embryotomy is unwarrantable where the child is viable and where the symphysiotomy can effect the delivery of a living child. The procedure is easy of performance and requires no preparation. As a heavy buistery and an artery clamp are the only instruments needed. The subcutaneous operation is the one I refer to here as I shall adopt that in the future as it requires no after treatment except a surcingle or tight hip hand to support the pelvis firmly and closely approximate the pubic bones."

The Cigarette Heart.

Dr. Crutch has this to say on the subject: My knowledge of the cigarette heart is limited to the peculiar conduct of the organ under the action of anæsthetics. Three times within six months I have had alarming experiences with cigarette fiends on account of their disquieting antics on the operating table. All were young men. All had feeble hearts and consequently poor circulation. The shock was out of all proportion to the severity of the operation. All the cases were carried through the operation succcssfully; but the ordeal had in every case been a severe one. Chloroform was used in two cases, ether in one; the ether gave most trouble. In no case did the amount of anæsthetic given

account for the crises on the table. In every case the tongue was drawn forward, false respiratory movements were made, the soles of the feet were slapped vigorously, and the head of the patient lowered. Recovery was tolerably prompt, save in one case where our efforts had to be prolonged for some minutes before it was safe to trust the patient to his own resources.

"I report these cases for two reasons: One is to direct attention to the extra-hazardous nature of all cases where an irritable heart can be detected in a tobacco user, and the other is for the purpose of calling out other men's experience upon the subject."

A Strange Skin Affection.

Dr. Samson of Russia has described a form of skin affection which, though not of very rare occurrence in certain parts of Russia, is not mentioned in any text-books of dermatology. The malady in question appears, indeed, to have escaped description in medical literature generally. Dr. Samson has, however, met with several cases during the last two years. particularly in the autumn, occurrnig in the easterly-government of Ufa, close to the Ural Mountains; and Dr. Sokolof, states that he has met with at least two or three instances of the disease every summer since the year 1881 in the governments upon the River Volga, and that his fellow practitioners in the country whom he has questioned upon the subject are quite familiar with it. The disease appears, in the form of one or more thin red lines, slightly raised above the surface, and looking like fine red threads. They occur usually on the face, but have been met with on the neck and forearm, but not on parts of the body usually protected by clothing. The thin red lines grows sometimes 15cm. in one day; at first it is straight, but later becomes bent on itself. It may disappear from the face and reappear on the mucous membrane of the mouth or nose or on the conjunctiva. The only subjective symptom is intense itching.

The cause of the complaint is found in a small parasite about 1 mm. long, consisting of ten segments; the mouth is surrounded by comparatively large hooklets, and is armed with what appears to be two suckers. Each segment is outlined by a fringe of small hooklets or projections. At the anal end are two large projections. By transmitted light two transversely striped tubes and other internal organs are seen. In addition to the full-grown parasite, which, it should be stated, is not found in the thin red lines, but abut ½ cm. from their ends in the still healthy skin, Dr. Sokolof has been able to find in every case at a distance of about two fingers' breadth from the end of the red line a number of small black nits or eggs. These are very firmly adherent to the fine hairs of the skin or to the eyebrows or eyelashes. The worm appears to escape from the bottom of the eggs, which are always found empty. It is suggested that the eggs are laid by some kind of fly, of which the worm is the larval form. The eggs have been found in patients seeking treatment for some other complaint and bearing no signs of the buried larvæ.

There are people who never accomplish anything because they undertake too much.

To the Editors of the Charlotte Medical Journal:

Gentlemen:

In your issue of the month of March, 1896, you make editorial mention of the fact that the friends of Dr. T. E. Anderson, of Statesville, will present his name at the next meeting of the State Medical Society for the position of Medical Examiner on the State Board. I read this little editorial of yours with pleasure, and it expressed my sentiments. However, there will be three vacancies to occur, and I desire to mention the name of Dr. Carr, of Durham, as a suitable man for one of those positions.

These names need no introduction to the profession of our State, and should it deem proper to elect them to these positions, the Medical Society will honor itself in honoring them. Drs. Carr and Anderson would add dignity and power to an already distinguished and capable Board of Medical Examiners to which our profession can point with pride.

Therapy.

Intra-Abdominal Shortening of the Round Ligaments.

Jacob Frank, M. D., Chicago, Ills., (American Journal of Obstetrics and Diseases of Women and Children, March, 1896,) says:

This method of replacing a retroverted or prolapsed uterus, or both, may, or may not, commend itself to the reader by the accompanying report of the seventeen cases thus operated upon, with but one failure and no deaths.

These cases had undergone the usual plan of treatment with but little if any relief before being operated upon, the length of time of treatment having varied between two months and five years.

Technique of Operation.—The first step of the operation is to gently tear or break up all existing adhesions, so that the retroverted uterus may easily be raised up; the round ligament is caught up anteriorly with a sharp or blunt hook or forceps, and is held taut by an assistant. A small full curved needle, threaded with fine silk, is passed through the loop of the round ligament, and is brought back in the reverse manner through the other half of the loop, no portion of the broad ligament being included. The needle must pierce the cord, and not pass around it, to avoid strangulation of the same, which will happen if the sutures are placed around instead of through it. The first suture is taken at a point, an inch to an inch and a half below the tenaculum that holds the ligament taut, the object being to place the first stitch low enough to keep the round ligament from sagging. Again be cautioned not to allow the round ligament to slip away from the advancing needle, which it is very apt to do, and thus pass behind instead of through it. You will know that you are passing through the ligament by the resistance offered to the needle, and you will also perceive a tense white band as the needle pierces the cord; two more sutures are placed above the first one, about one-fourth of an inch a part, when it will be observed that the uterus already stands in a slightly retroverted position; the other ligament is likewise treated and the abdomen closed.

Should the ovaries or tubes demand removal, they ought first to be attended to. Where there is marked prolapse, the free end of the shortened ligament may be fastened to the parietal peritoneum by one suture, thereby elevating the uterus still more. The round ligament may be

scraped gently before suturing it, the stitches must not be tied tightly, all that is required is to bring the two peritoneal surfaces in contact, avoiding blanching. Fifty per cent. of the cases thus operated upon have been under observation for two years, and in this number the uterus has maintained its corrected positions, some of the women having passed through severe and tedious labors.

In the case that failed only one suture was taken through each ligament, whether this suture gave way or whether it was not enough, I am unable to tell.

A well fitting pessary should be placed in the vagina before the operation, so as to put as little strain as possible upon the sutured ligament, until firm union is assured. when the pessary can be removed.

The Necessity for the Early Recognition of Morbid Growths in the Mouth.

Prof. Andrew G. Friedrichs in a paper upon the above subject, read before the Louisiana State Dental Society, and published in the New Orleans Medical and Surgical Journal endeavored to impress the vital importance of the early recognition of cancerous growths, and how much more important to the patient to know the true character of his disease, his life may depend upon.

A patient may consult you for a small ulcer upon the tongue. Such cases do present themselves to us; the rough edge of a decayed tooth may have caused it: the tooth is extracted and we take no heed of the ulceration. The patient leaves in the fond hope that now that his tooth has been removed the ulcer will heal. Alas! how often is this expectation found to be delusive, and often waiting weeks, possibly months, finding matters becoming worse instead of better, he consults a surgeon who dashes all hope to the winds and informs him that he is a subject of cancer of the tongue, and that the greater part of this important organ must be removed; frequently the glands have become involved, and what might have been a simple and trivial operation, had the disease been recognized early (in the first stages), becomes a grave and serious one, with the possibilities of its recurrence increased a hundred fold. This plain statement of the truth will apply to all morbid conditions of the mouth or jaws.

He then called attention to those forms of disease which we are most apt to see, and which attack the jaws, viz.: Cysts, epulis, epithelioma, and sacoma, both round and spindle cell. He pointed out the fact that the irritation of diseased roots and teeth are the frequent cause of the morbid developments in the mouth.

Dr. F. advised the early removal of all roots of teeth which may be found irritating the gums, and if at any time a fungoid growth or ulceration is found around any decayed teeth or roots, and there is a hereditary tendency to malignant disease, do not waste a moment, but remove them as soon as possible, and should others be found to exist, extract them also, and further instruct your patient to present him or herself from time to time for inspection, and should there be the slightest tendency in the part for the growth to increase, do not hesitate to advise its complete and thorough removal. It is the part of wisdom to have any growth upon the gum that is clearly not a simple epulis microscopically examined.

Then you can feel and known that you have conferred a lasting benefit on a fellow being, and at the same time done all in your power to shield from pain and save from loss, and have added health and comfort to your patient. This fulfilment of obligation must contribute to real happiness —a happiness that mere praise can not bestow, and that money can not buy.

A Plea for Conservatism in Gynæcology.

The following reply was made to the toast "Conservatism in Gynœcology, may its influence increase," at a banquet given by the faculty and graduating class of the Wisconsin College of Physicians and Surgeons, in the Plankinton House, Milwaukee, March, 31, 1896:

Mr. President and Gentlemen:—Sometime ago there appeared in a sensational secular newspaper a harrowing tale of a surgeon who, becoming enarmored of his art to an insane degree, removed, piece by piece, his wife's beautiful and useful organs until there was not much left to love, had he shown a disposition to love his art a little less and his wife a little more. Indeed, by always observing strictly aseptic principles, this loving husband succeeded in transforming a beautiful, healthy, and trusting wife into a limbless, sexless, voiceless, blind and deaf palpitating bundle of scarred and hideous flesh and bone, capable of carrying on the vegative functions of life only.

Now, from a purely surgical point of view, the case was "very interesting" and the operations were all successful. When, however, society learned what this great man had done, it refused to view the matter from his standpoint, and speedily set about to raise a vigorous material protest. "Then burst his mighty heart"; for, chagrined and discouraged by the lack of public appreciation, he promptly took himself off with a dose of poison.

There can scarcely be any doubt that offenses the same in kind but less in degree are often committed in the name of surgery. In times recently past they may have been the result of ignorance; but progress has removed that ignorance in more recent years, and suggested a hundred conservative measures to take the place of radical and drastic operations which left the patient mutilated and unsexed. Aseptic methods, too, have not been without a potent influence in taking away that conservatism which should sit in judgment close to the surgeon's right hand. Great wounds when aseptically treated, even when vital organs were involved, were seen to terminate happily; and the great surgeon would have been something more than human did he not sometimes overstep the bounds of a proper conservatism, to win the applause of his fellows.

But there are other and greater sins against conservatism. It would be idle to contradict that scores of radical operations, yes, hundreds, are made upon women for which there is no other excuse than that the operator wishes to add to his list of laparatomies or vaginal extripations or to do something to win the applause of the gallery. I do not make this as a general statement, but I have in mind cases amply numerous to justify it. The other day the heart of a young healthy woman whom I know well was gladdened by the advent of a baby daughter; though less than eighteen months ago this same woman was advised by a surgeon who has made a great local reputation for the number of laparatomies he

has made, that she must be castrated. Now, I declare to the gentlemen present that this poor woman had nothing under the heavens the matter with her except a slight irritation of the bladder which was relieved in three weeks, after she was advised to drink more water, and she has been perfectly well ever since.

Another patient with retained decidua and fistula, was for months importuned by her physician (who, by the way, carries about in his hat scraps taken from country newspapers telling what a great man he is) to submit to the abdominal section and the removal of her ovaries. A single curetting of the uterus relieved this woman of so much of her discomfort that she has since refused to have an operation for the fistula. There were reasons, by the way, for not doing both operations at the same time.

Castration was also urged in the case of a young woman suffering with dysmenorrhœa. Her physician was a young man who is anxious to "do his first laparatomy." There was in this case, aside from a slight cervical catarrh, not only no destruction of any part of the reproductive organs, but not the slightest sign of any previously existing inflammation either recent or remote; and a simple dilatation of the cervical canal completely relieved her painful menstruation. The husband of still another young woman who has been married only a few months recently took his wife out of my hands, because she did not recover from an obstinate endometritis soon enough to satisfy him. The surgeon to whom she was next taken promptly unsexed her while yet the honeymoon was young; and she, an old woman at twenty-five, mentally, fitted for no vocation but that of rearing a family, is doomed, should death not kindly intervene, to drag out a long period of hopeless, empty, unlovable and unlovely senility.

In Indiana in a little town of less than ten thousand inhabitants, an ambitious surgeon performed twenty-four total vaginal extripations of the uterus within six months after returning from a trip to Europe. This occurred last year; but in all the history of that town, never had so many operations of this kind been done before.

A few weeks ago I received a reprint of an article written by a doctor in a western town of three or four thousand inhabitants. He tells me, with pen and ink, on the title page of his pamphlet that "I have done six more" vaginal oophorectomies in the eight or ten months since the article in question was published. Now, Polk's Medical Register shows that there are twelve other physicians in the same town. No doubt they are all as anxious to become distinguished surgeons as the man who has "done" his six radical operations in the last eight months, and if they are all as industrious as he, they will soon bring about a local Malthusian millenium.

You may see such things in Europe. In one of its largest capitol cities one man has msde quite an international reputation almost exclusively upon the dexterity with which he can remove the uterus through the vagina. I have seen this man remove a number of uteri for catarrhal salpingitis, without pus, and I have seen him remove the uterus and its appendages with a hard fibroid tumor of the broad ligament which he himself admitted might have been removed and the uterus and its appendages left intact. This man knew nothing about plastic gynæcologic surgery; and I am sure that very many of his radical operations were

wrong and could have been avoided by using conservative minor operations.

If one had time he might make a very long story of this; but that is neither desirable nor necessary, for those who have been in practice even for a brief time know that it is true and these who go out from us tonight will soon learn that it is true.

I would not be understood as making a plea for non-interference or in any way disparaging the magnificient development of gynæcological surgery. If the sacrifice is unavoidable let it be done with a brave heart and a sure hand; but I would shrink from applying the knife in cases which would yield to patient and intelligent treatment without sacrifice as I would shrink from the amputation of a broken leg or dislocated arm.

But there is a healthier sentiment growing up—a sentiment that after all the abdominal section and the hysterectomy have been too inconsiderately done and that woman is not to be robbed of her sex for every trifling ailment which the sexual organs may suffer. The time will surely come, and I hope that it is not far off, when the completion of the thousandth ovariotomy or hysterectomy will not be the necessary mark of a great man, and a cupboard of shelves containing the alcoholized remains of poor woman's mutilated sexual organs will be regarded only as fetishes for the worship of a weak mind.

63 and 64 Sentinel Building. JNO. MADDEN, M. D.

HOT SPRINGS, ARK., Dec., 12th, 1895.

ZUMO PHARMACAL CO., St. Louis, Mo.

Gentlemen.—I have used your ZUMO-ANANA to some extent and always with gratifying results. I used it in a case that could not tolerate Iodide Potash with any combination until I combined Zumo. C. G., Age 33, bar-tender consulted me on Oct., 8, '95. Found patient with a well developed secondary Syphilis, prescribed Oleate Mercury 20 per cent. 1 dr. rubbed in at night. Succus Alterans 3 oxs. Kali Iodi 1 oz. Sig. two teaspoonsful after each meal. On third day patient had all the symptoms of Iodism. reduced the Iodide Pot. to 15 gr. per day, but still had the bad symptoms. At the suggestion of a friend, I combined Zumo. The bad symptoms at once disappeared. I increased the Iodide Pot. to a 50 per cent. Sol., giving 90 gr. Iod. Pot. a day with no bad results. The patient is about ready to go home, being in a fine condition.

H. U. WALLACE, M. D.

Tuberculosis in Parrots.

According to the Berlin correspondent of the "Lancet," parrots seem to be very liable to tuberculosis—so much so, ideed, that of 154 parrots treated in the Veterinary Institute of Berlin 56 (equal to 36 per cent.) showed tuberculous symptoms. As the tuberculosis of these birds is caused by a species of Koch's bacillus it is possible that the diserse may be transmitted to their owners or other persons. Dr. Braatz, while attending a patient suffering from tuberculosis, observed that the parrot in the house was ailing, and as examination by a veterinary surgeon proved that it was the subject of tubercle he directs attention to the possibility of tuberculous disease being acquired from these domestic pets.

Pathology and Therapeutics of Rheumatism.

Dr. C. H. King (Iowa State Medical Society, April 16, 1896,) says: The pathology of Rheumatism may be briefly formulated as being a diathesis caused by the retention of certain toxines, probably the result of faulty metabolism; possibly of retrograde tissue metamorphosis.

Uric, and lactic acids, have both been proposed as being the offending agents. Even specific micro-organisms have been assigned a role in the production of the disease.

By errors of metabolism vicious products may be formed, which by deficient elimination will accumulate. Likewise the non-elimination of the waste products of retrograde tissue metamorphosis ptomaines and toxines are created, which disturb the physiological balance, with marked and deleterious effects upon the system, resulting in a further disturbed metabolism.

The marked analogy of secondary joint affections following gonorahœa, scarletina, and various septic processes, to rheumatism, has led to the claim that specific bacteria produces the disease. These articular sequences are the result of septic or other infection, and are *not* rheumatic, uric acid being highly insoluble, its elimination is favored and effected through its soluble salts the urates of potassa soda and ammonia. So long as the toxines are promptly and fully excreted the physiological valance is maintained, but if the secretory and excretory functions of various organs are interferred with by cold, exposure, etc, then there will be a retention and the accumulation of these toxines act as the exciting cause of disease, because of their non-elimination.

Rheumatism is, therefore, caused by TOXIN RETENTION, the key-note of the therapeutics of the disease must be ELIMINATION.

The various alkaline salts, owing to the readiness with which they unite with uric acid to form the soluble urates, facilitate this object. Probably the benefit derived from Fuller's treatment depends upon this fact.

The skin, bowels and kidneys are the three great avenues of elimination.

Keeping the patient warm in bed is essential to cutaneous elimination. Copious draughts of hot water greatly promote the action of all diuretics. Pain, if great, may be reduced by Dover's powder. Antipyrin, Phenacetin, acetanilid, and other allied coal tar products, are active diaphoretics and analgesics. They are also cardiac depressants, and should be used with circumspection. Acetate of potassa is an old but valuable diuretic. It may be combined with spts. eth. nit, and the tincture, or, better still, the infusion of digitalis. In cardiac complications with rapid and irregular action, it is especially useful, and the kidneys where secretions have been scanty under the use of other diuretics, will often respond copiously when digitalis has restored the equilibrium to the circulation.

The most popular remedy of recent years is salicin, or the salicylates introduced by Stricker, of Berlin, who claims it to be a rapid and radical remedy in acute, articular rheumatism. He gave it in 7½ to 15 grains hourly.

McLagan, of London, gave it with benefit in 30 grain doses hourly, until one ounce had been given, then every two or three hours until the second ounce had been consumed, then three times a day for a week or ten days to prevent relapse. Squire claims that the general anesthesia

induced by the salicylate of soda has much to do with its antipyretic influence, and that it favors an increased elimination of urea by the kidneys.

Haig claims that salicylate of soda increases the excretion of uric acid.

Osler states that the "salicyl compounds are now known to act chiefly by relieving pain, and E. P. Howard's elaborate analysis shows that they do not influence the duration of the disease." Osler also states that he found the oil of wintergreen quite as efficacious as the salicylates.

The salicylates are of doubtful benefit in chronic rheumatism. It is here that potass iodide in small or medium doses and long continued, give the best results. It may be combined with colchicum to advantage. Fireing with the paqualin cautery is preferable to blisters to the inflamed joints.

Obstinate cases of chronic rheumatism will often respond to a course of treatment at some of the hot springs where home treatment fails. The hot baths, copious ingestion of the alkaline waters, aided by popular faith in the treatment; are all in the line of eliminative treatment.

Conclusions.—The rheumatic diathesis depends upon *toxin retention*, probably the result of faulty metabolism; possibly of retrograde tissue metamorphosis.

So long as the toxins are freely eliminated no deleterious results follow.

The principal toxin is uric acid.

The pathology of the disease being based upon toxin retention, the chief therapeutic indication is elimination of the morbific agents from the system.

All agents supposed to exert a specific action *per se* upon the disease should be combined with a general eliminative plan of treatment.

Treatment of Hemorrhoids.

At the meeting of the Tennessee State Medical Association, April 15th, Dr. H. R. Coston, of Fayetteville, Tenn., read a paper upon the "Treatment of Hemorrhoids."

No medicinal treatment will cure a case of well established hemorrhoids. In acute cases to keep the bowels well open and use enemata of cold water, or suppositories of ice, or oint. subsulphate iron, and rest in bed may allow nature to heal her own ills, but after the tumors are well formed—reach the chronic stage—only operative treatment should be used.

Only three procedures were considered.

Injection, Ligature, and Clamp and Cautery.

Injection treatment was condemned as uncertain, dangerous, the hobby of advertising charlatans, and unworthy the support of the regular profession.

In considering the ligature operation, the author emphasized the necessity of dissectiug the tumors well up to its neck, and not apply the ligature to the entire base of the tumor, or only in a shallow incision. By this means a small slump would be secured and a correspondingly short period of sloughing.

The clamp and cautery operation was his preference. Instruments,

few and simple, only consists of a Pile clamp, a good cautery aparatus, a double tenaculum, and a pair of scissors.

Deep anæsthesia, thorough distension of sphincter, shallow incision in base of tumor, application of clamp and thorough burning down of the tumor.

Reasons for preferring clamp and cautery operation:

1st. By clamp and cautery operation no sensitive nerve end tied up to give pain as in ligature operation.

2d. No danger of secondary hemorrhage from slipping of ligature. If hemorrhage occurs it is immediately and the fault of the operator.

3d. There is no danger of a recurrence of the disease.

4th. Convalescence is shorter.

5th. There is no mortality.

6th. Clamp and cautery requires less after treatment.

7th. There are no unpleasant sequellæ.

Septic Peritonitis.

Lewis Schooler, M. D., LL.D., read a paper with this title before the Iowa State Medical Society, April 15th, 1896. He says:

Septic peritonitis is due to the absorption of toxic alkaloids. The most frequent sources being the uterus after labor or abortion, the bowels when injured or in perforating appenticitis, or in what is termed post operative cases where there is some fault in the technique or preparation of the patient, more frequently where soiling the intestinal or parietal peritoneum is unavoidable, as in operations for the removal of purulent collections, suppurating fibroids, dermoids, pus tubes, grangrenous or perforated bowel, tumors with twisted pedicles appendicitis fulminans, &c. Pain in the post operative and in perforated appendices, or bowels, is nearly always present, and generally acute. In those cases where the septic material is derived from the uterus there is usually no pain and no shock. A chill is, however, likely to be present, more frequently than in the post operative cases.

Notwithstanding that all are due to trauma, the progress is often so rapid that the disease may terminate fatally within ten hours, there often being little or no evidence of damage to the peritoneum even after death. Few operators, if any, have been fortunate enough to escape accidental contamination of the peritoneal cavities, and the fact that pints or even quarts of pus have been allowed to enter the abdominal cavity without producing sepsis only emphasizes the fact that some germs are more virulent than others, and that recent purulent formations are more dangerous than older ones.

But as the distinction cannot always be made clinically, the strictest antiseptic treatment should always be adopted, re-opening the wound in post operative cases, and opening the abdomen in the non-operative ones, with cleansing and drainage will give the best results; gallons of water should be used in these cases, every portion of the infected membrane should be reached. Sterilized, water, or a saline solution, at a temperature of 110 to 120, is recommended, the object being to remove and not to destroy the germs and their alkaloidal products in as speedy a manner as possible.

The gauze drain is usually preferable to the tubular, it controls hem-

orrhage, favors coagulation by its action on the peritoneal cells and lucocytes, and overcomes gravity without injury to intestines or adjacent organs. The bowels are the sewers of the body and should be freely flushed. The patient should be sustained by artificial feeding, and the administration of strychnia hypodermically.

Dyspepsia Cases from Practice.

"What is asked of medicine," says the venerable Dr. Burggraeve, "is that it should cure or at least bring about relief. Medicine men must not be reduced to the useless state of maturalists, passing their existence in describing and delineating the diseases of mankind. What are termed fine cases are of very little interest to ordinary mortals who are only interested in finding that these curiosities do not apply to themselves."

Of all diseases, dyspepsia is the most frequent—"one-fifth of the people at least are affected with this malady." Dyspepsia being a permanent enemy, the practitioner is frequently called upon to combat it, and indeed it is one that too often escapes his efforts when he has not been able to discover it in some of the varied and often mysterious forms. It is necessary to submit it to treatment at once, as it is likely to degenerate into organic lesions, which are always incurable when fully established. There is no class of functions which exerts so general an influence as that of digestion; in fact most disorders of other functions may depend upon it; as regards the nervous system, cephalagia, vertigo, disordered sight and hearing, defective intellectual powers, defective sensation and motion, excess and want of sleep.

With the respiratory organs, oppression, dyspnœa, gastric cough, hoarseness. As to the circulation-palpitation of heart, irregularity of pulse, digestive fever. With the kidneys, thick urine, sediments, gout, calculi. With the genital organs, debility of temperament and even impotency. With the skin, eruptions of many kinds.

With regard to dyspepsia itself it may depend upon a single functional disorder, since materia, without organic lesion, or with a lesion, either of the intestinal canal itself, or of its annexes and envelopes: diseases of the liver, pancreas, peritoneum, or again it may result from the presence of worms or some foreign body. Taking all these causes and conditions into consideration it would seem a hopeless task, almost to undertake the cure of dyspepsia, especially after having had an experience of several years with its therapeutic management. Naturally enough from the way we have been taught to view these things; we would not suppose that any one drug or medicine could cure even the most simple of these bases; no, not even aided by the best dietetics known.

But we are liable often to surprise, even from quarters least expected.

I received about a month ago, some samples of Zumo-Anana through the courtesy of the Zumo Pharmacal Co., St. Louis, Mo. I received also a very nice letter from them asking me to give this remedy a trial in my practice when occasion offered. This I could not refuse to do, especially when what I considered ample testimony, from physicians of good standing was afforded in its favor.

First Case.—The first suitable case presented was that of a lady aged about 50. passed the "climacteric" of a swarthy complexion, nervobilious

temperament, and rheumatic disthesis, always better while eating and just after eating, but about an hour or two after eating always worse. Always complained as though an obstruction as of a blunt plug was pressing in the intestines. Her habit was very costive, and when not costive a loose watery, weakening discharge from the bowels took place.

Derangements from the stomach were usually increased after taking ice cream, berries, or anything containing any sort of acid. A feeling of weakness and emptiness in the bowels was always complained of. For the past fifteen, years I have known intimately the general condition of this patient, and had prescribed for her complaint many times (though not the physician who had done so) and all without much relief.

On the 22nd day of Jan. 1896, I put in her hand one bottle of Zumo-Anana, with directions to take an ounce immediately before meals, but no restrictions of diet. The effect was very pleasant, and her digestion has been better since than for several years, and her general appearance is much improved every way. She will continue to use Zumo-Anana.

Second Case.—A lady aged 56, diathesis similar, and also a similar temperament, a dark brunette. With this case there does not seem to be any organic lesion, though there has been throughout her whole life what might be called a very weak stomach, never a strong appetite, but always able to eat liberally of mixed foods, yet for the sake of comfort required to eat very carefully. This patient has been all through life since her "teens" a subject of paroxysmal headaches, or migraine, often keeping her confined to her bed for three or four days at a time, nothing ever seeming to do her any lasting good.

Of the gastric variety of cough, she has frequently suffered much; this cough when the attack came, persisted in spite of all remedies, until after a week or two it would gradually disappear.

Recently this lady had an attack of recurrent la grippe, the sick headaches and neuralgias came with it, and in increased fury. For these and for the first time, the lactophenin was brought into use for her, and I am happy to say it did better than all or anything else ever before prescribed or taken, as result of la grippe she was left in a very weakened condition generally, and as regards the stomach, it would not bear the least food. At this point Zumo-Anana was prescribed in a tablespoonful doses every three hours, as well as malt extracts, had frequently been tried on other occasions of a similar kind, yes, and in conditions following grippe, same patient, but without any benefit. In fact none ever agreed with her stomach or head, until the pine apple wine, or Zumo-Anana, was prescribed, and I am pleased to say this had just the right effect. The patient seemed to improve from the beginning and has continued to improve, although she has taken less of it now than at first. As far as I know this preparation has the least possible amount of alcohol in it consistent with its perfect preservation.

Note.—This patient during the sequel of la grippe, I feel I ought also to add, was an extreme sufferer from a local neuritis of a very painful form, rendering her unable to dress herself for about a week. For this condition was prescribed locally the oil of pepperment, and generally three or four times a day a granule each of the arseniate of strychnine, atropine and aconitine together, and at other times for change, the tablet triturates of the same article. Lactophenin was also used at night, giving

a full dose of eight grains at bedtime, which procured rest for the night.

W. C. Buckley, M. D.
Editor Medical Summary. 723 Berks St., Philadelphia, Pa.

The Trend of Modern Therapy.

Abstract of a paper read before the St. Louis Medical Society by Thomas Osmond Summers, M. A., M. D., F. S., Sc., London.

The stimulus given to the physiological lines of therapeutic philosophy by bacteriological investigation and discovery, has well nigh set aside forever the empirical methods of the past, which had from the beginning no foundation in science, or satisfaction in result.

The discovery of the possibility of extracting from the "organism in action" the vital units of the body in the form of active leucocytes and preserving their activity without chemical methods, as shown in that most powerful of physiological agents, Protonuclein, opened the way for a thorough analysis of other possibilities which are displayed in the inorganic realm of animal physiology. The discovery of the chemical process which gave rise to that most active combination, Melachol, fulfilled completely the complement of physiologic therapy, thus rendering it possible to support those conditions dependent upon leucocytosis the now recognized basis of all normal antiseptic agency in the organism. *All the Antitoxines depend for therapeutic effect upon this power to produce or bring about leucocytosis,* and thus the active agent supported by its inorganic reinforcement seems to cover the whole field of modern therapy.

As to the practical results derived from the use of these two grand representatives of physiologic therapy, the flood of clinical reports that have come in, abundantly sustain the principles upon which they were founded. Being lifted above all atmosphere of suspicious proprietary medications, based upon the firmest foundation of physiologic science, they have come to stay and "their works declare their power."

Should Ocular Strabismus in Adults be More Frequently Corrected.

In the March number of the Colorado Medical Journal, Dr. G. Melville Black, of Denver, has an article entitled "Should Ocular Strabismus in Adults be More Frequently Corrected?" in which he supports the question in the affirmative; maintaining that the great number of uncorrected squints in adults is a reflection on ophthalmological technique. He prefers advancement of the long muscle with tenotomy of the short muscle of the squinting eye, thereby, if possible, obviating an operation on the fixing eye.

The object of Dr. Black's paper is, no doubt, to call attention to his method of tieing the sutures in advancement operations, and refers to his article in the 'Archives of Ophthalmology," page 375, vol. xxiv, in which he fully describes his method; which consists in passing a full curved needle, carrying a double thread with its ends tied in a hard knot, into the sclera near the corneal margin, pulling the thread part way through, then passing the needle between the threads on the other side of their entrance to the sclera, and then pulling up the threads taut, thereby gaining a firm point of fixation in the sclera. One of the sutures is fastened above the cornea and the other below it. The next step consists in making

incisions through the conjunctiva and capsule down to the sclera at the upper and lower sides of the muscle. The muscle is now picked up with a tenotomy hook and the sutures before mentioned are passed through the belley of the muscle from below upwards, as far back as desired, and the muscle cut in two just in front of them. The stump of muscle is now desected from the globe; then with a pair of forceps the globe is rotated in the desired direction, and at the same time the other hand grasps the sutures and pulls the muscle into position, the eye having been brought into the desired position, the sutures are tied in a surgeon's knot over the muscle. He claims for this method of fixing and tieing the sutures, that the rotation of the globe on its anterior posterior axis is obviated, in as much as the globe is not pulled upon more by one suture than the other. He claims there is very little traumatism, and that the sutures are very easily removed.

Dr. J. A. Lippincott, in the December number of the "Pittsburg Medical Review," publishes three cases of advancement of the internal rectus muscles by Dr. Black's method, and speaks of it in very high terms.

Scarlet Fever.

Dr. O. C. Omohundro (Tennessee State Medical Society) read an article on this subject. This article having justly received favorable comment from other sources, we reprint a digest of the principal points.

That scarlet fever was transported to this country about 100 years ago, and is now most prevalent in the United States; that it is a specific disease, produced by germs, claimed by Klebs to be a micrococcus (*monas searletenosa*), seen also by Eukland, of Stockholm, and E. O. Shakespear describes this bacillus; it has been observed in domestic animals.

Clinical observation teaches that the germ enters the system principally through the upper respiratory tract, thence rapidly entering the blood, effects every tissue, secretion and excretion of the body, (but explodes its potentious influence, principally, upon the central nervous system.

That all products of the body are highly infectious. Yet close contact is an essential factor for this. That frequent infection from mild sources produced malignancy in others; this was due to the pathological and physiological conditions of those affected. Hence the necessity of treating those exposed as suspects with antiseptic gargles and general tonics. Thus we attack if not destroy the germ on its ingress to the system and prepare the body for the ordeal to come; thus frequently limiting the cases to one in a family, or making milds what otherwise might have been malignant ones.

This virus sticks closer, lasts longer, and can be transported further, than any exanthematous fever poison, small-pox excepted; Kavney Dodgers said it lasted from two months to two years.

Its mortality is 10 per cent., two-thirds of all deaths are in the first five years, five per cent in first year, fifteen per cent. in second year, and twenty per cent. in third year, over this less than five per cent.

C. H. Mays reports five per cent. of all aural affections, and 10 per cent of all total deafness due to scarlet fever.

Perfect ventilation, issolation, and hygienic surroundings are enjoined.

He invites study into the surgical pyæmia of Spence Wills from

scarlet fever infection, as well as Playfair's puerperal septicæmia. No race, nor age, nor clime, has absolute immunity. It is dangerous from its own inherent virulency, rendered doubly so from grave complications and sequelæ. The gravest of these complications, due to the egress of the disease, is desquimative nephritis, which is curable, but tubular nephritis never.

Cholera Infantum.

By J. M. Duncan, M. D.

A complaint peculiar to infantile life, too well known to need further description. I have been requested to give my treatment for this scourge of the nursery. I will not stop to give its pathology or morbid anatomy. What the profession ueeds is the simplest and mildest treatment that will relieve the little sufferers in the shortest time; one of which, at least, I hope to give.

The first five years I practiced, I treated these cases as I had learned to from the books and lectures. When my little patients died I wondered why they did not get well, for I knew my treatment was orthodox. When a poor, little emaciated one lingered through the summer into autum, and finally got well, I knew it was despite both disease and treatment.

Among my patients was our own little Ruby, a bright, sweet darling of fourteen months, stricken July 2d. I exhausted the remedies laid down in the books and those in my memoranda taken down at college, then called to my assistance the ablest physicians available. They said I had done all they could do, and offered nothing new. One, a diplomat, said, he had obtained the best results, in such cases, from the use of Mrs. Winslow's Soothing Syrup, advised me to try it, and away. In my despair, I cried out, "is this all?" Is this the end of all hope of assistance, in this hour of my great distress.

July 28th she ceased to be. We laid her away, and might well have written on her little monument, whose spire points heavenward, "Died early, because they knew not what to do."

Then I began to inquire of every doctor I met: What is your treatment for cholera infantum or summer complaint in children? They replied: Opium, morphine, laudanum, paregoric, Doveri, cinnamon, cloves, allspice, nutmeg, kino, blackberry-root tea, white oak bark, raspberry leaf—the whole catalogue of astringents—made into some form of powder, decoction or syrup. The same old, old treatment that has sent, and is still sending, multiplied thousands of lovely, innocent children to premature graves, that ought to be saved; and many of them would get well if they never saw a doctor, or rather, if a doctor never saw them. Hard words to say! but I have been over the battle-grounds; I have witnessed the last struggles; I have heard the weeping of mothers and friends, who anxiously watched for the last breath.

I have paid dearly for my knowledge. I am still in a position to look over the field, read the results, and know whereof I speak. I had tested the treatments laid down in the standard works, and those given me by my teachers, and found them distastrous failures. I had applied to professional gentlemen with whom I met, and some of them appeared to think they had about reached the top round, and, from them, learned

nothing new under the sun. I was then, comparatively, a young man. I determined to pull out of the rut made by that old professional cart, that went out from Philadelphia over one hundred years ago, and, if possible, blaze a way to the goal of my ambition, to relieve and save these little sufferers.

Under astringents, I found the inner coating of the stomach wrinkled and hard, like that of chicken's gizzard; the small intestine the same, with occasional short spaces distended with gas. No digestion, absorption or assimilation could take place under such conditions. (If you will cut down here after death, gentlemen, you will find, after using your puckering treatment a similar condition.)

I began to think for myself: There is evidence of irration here, manifest at both ends of the line. First, by the vomiting, and second, the diarrhœa. What then are the indications?

The answer is plain. First, control the irritation, and second, remove the cause. To control vomiting. one-eighth grain tablet of calomel every hour until four are taken. Follow with teaspoonful doses of castor oil, or pure olive oil, in which is mixed three to five drops of Battle & Co.'s Bromidia, every two hours, until it operates on bowels, and be sure that it *does operate, too,*

Then give every two or three hours from half to a teaspoonful, according to age and emergency, of the following:

℞ Aquæ Calcis.....1 ounce.
Mistura Cretæ.....1 ounce.
Syrup Acaciæ.....1 ounce.
Bromidia.....½ ounce.
Bismuth Sub Nit.....1½ drachms.
M. Sig. Shake well before using.

Repeat the oil every morning *till it operates*, and follow it as before. If the Bromidia in this formula is not sufficient to insure quiet and sleep, I give enough of it in addition till it does, always properly diluted. In extreme bad cases, with, "brain symptoms," I depend entirely on Bromidia, and it has never failed me. I have given it in half teaspoonful doses every hour till the desired effect, with no unpleasant results.

Observe proper rules of feeding and bathing and the little patient is usually all right in a few days. Since I have adopted and followed this course, now about twenty-five years, I have not lost a case of cholera infantum or summer diarrhœa, and my records will show that I have treated, probably, as many as any one in the same section of country.

I want to say here, that I have saved the lives of more children, of all ages, with Bromidia, than any other remedy I have ever used, and I have used it since it was first introduced. I would no more think of going among the little ones without a bottle of it than I would of going among the "Haw-eaters" of the Missouri Valley, without a bottle of quinine. I know how many feel from what they write about so-called proprietary remedies, but "what I have written, I have written." "The proof of the pudding is in chewing the string;" chew the string, gentlemen, and then tell us what you know.

When doctors learn that medicines never cure any disease, but may only remove the cause, that the system may restore itself, then there will be a great revolution in our medical armamentarium, and the manner of using, to obtain the desired results.

Medical Brief, September, 1895.

Antiphthisin.

In November, 1895, the Parish Medical Society of New Orleans, La., appointed a commission for the investigation and a public test of antiphthisin, as to its value in tuberculosis, to be made in the Charity Hospital of New Orleans; the commission consisting of the following members:

Dr. Edmond Souchon President; Dr. A. J. Bloch, Secretary; Dr. J. D. Bloom, House Physician of Charity Hospital; Professor John B. Elliott, Professor T. Matas, Professor F. W. Parham, Dr. F. Loeber, Dr. Charles Chassiagnac, Dr. John H. Bemis. Dr. Joseph Holt, Dr. H. L. Lewis, Dr. P. E. Archinard, Dr. O. L. Pothier, Dr. A. Mc Shane, Dr. C. J. Lanfried.

The treatment of cases began November 27th, and its final report was presented to the Parish Medical Society at its regular meeting, March 28th, 1896.

The report is voluminous and will be published in full.

The following are the conclusions arrived at:

Conclusions in Surgical Cases.

A consideration of the three improved cases would certainly lead us to believe that Antiphthisin has decided value, and we should commend its careful, tentative employment in such cases in conjunction with general measures, and the usual appropriate surgical operative treatment. The glandular case we consider especially encouraging. This case would seem to have required a most serious operation for the removal of the glands with great uncertainty of ultimate benefit. The improvement under Antiphthisin treatment would alone justify us in ascertaining that we have in this remedy a most valuable aid in the management of such cases. We beg to call attention in this connection to the case of Dr. Ambler, of Ohio, reported recently in the New York Medical Record, as confirmatory evidence of the value of Antiphthisin in glandular tuberculosis. The hypodermic employment of the remedy would seem to be especially advantageous if administered under careful aseptic precautions.

Conclusions in Medical Cases.

1. In nearly every case the area of lung involved decreased, if it did not clear up entirely.

2. Auscultation bore out the results of percussion, vesicular respiration, replacing to a greater or less degree, morbid breath sounds.

3. In those cases which were claimed as cured, the departure from health being only such as is due to the results of every continued pneumonic process.

4. Secretion was diminished even in the cases marked only improved, and entirely absent in others.

5. Bacteriological reports in most of the cases bore out the results obtained in physical and other examinations.

6. The general condition of the patients improved in the large majority of cases, even in those whose physical examination did not show any great improvement.

7. The use of the remedy was not attended with any danger to the patient.

8. Finally, Antiphthisin does seem to have curative and not simply palliative qualities.

A New Form of Antiseptic Treatment of Wounds.

By Dr. C. L. Schleich, Berlin.

If gelatine dissolved in water is exposed to Formalin vapours, a chemical compound possessing completely novel properties is formed. The gelatine completely loses its gelatinous character and becomes an extremely indifferent and resistant hard transparent body Neither dry nor moist heat can dissolve it, neither organic nor mineral acids, alkalies or alkali, or acid salts, affect it. When heated, the mass becomes slightly extensible, but regains its stiff elastic nature on cooling. The Formalin which is not mixed with, but chemically combined in the compound, also becomes inactive, so that hyphomycetes have sometimes been observed on the surface of gelatine plates hardened with Formalin, and when broken into fine powder and mixed with bacteria, the compound exerts no kolyseptic influence.

It was the object of my investigations to ascertain whether it is possible for the Formalin gelatine to give up its Formalin in the organism and so to effect an antisepsis by means of the tissues elaborating their own antiseptic from this non-antiseptic and non-toxic substance.

As a trial the incorporation of Formalin-gelatine in the abdominal cavity of a rabbit was attempted. A piece of dry Formalin-gelatine about the size of an apple was inserted and sewn up with aseptic precautions. The rabbit lived and remained perfectly well the subsequent 6½ weeks. When I then reopened the abdomen I found immediately under the old opening in a coil of intestine a radiating horny connective tissue about half the size of the piece of Formalin-gelatine inserted, but to my great astonishment no sign of the Formalin-gelatine itself. Section of the newly formed connective tissue explained the situation at once. In the centre of the neo plastic tissue was a soft whitish nucleus about the size of a hazel-nut, which apparently constituted the remainder of the absorbed material. This was most astounding, that the peritoneum, leucocytes and body juices should have dissolved in so brief a period a substance which exhibits such great resistance to solvents outside the body. Still more surprising was the fact that the implantation carried out without special precautions in the body of a rabbit, which is specially disposed to lymphomatous eruptions, developed no sign of cheesy degeneration around the smooth cicatrix.

This experiment I have naturally repeated and also on pigeons and dogs, mixing in some cases even bacteria with the powdered Formalin-gelatine, after having determined absence of kolyseptic action in the powder. The powder was absorbed without reaction. *Supported by this experience I began to employ powdered Formalin-gelatine for the treatment of wounds and found that it answered all expectations.* The human system also decomposes Formalin-gelatine with continuous liberation of the antiseptic. Even contact of the tissues with this preparation is sufficient to cause liberation from the absorbed gelatine in statu nascendi, molecule by molecule, a slow continuous evolution of Formalin, which effects an extremely practical wound sterilisation. Here an antiseptic is used con tinually, as it is formed, in the molecular condition. The application is a permanent one and equally active in the wound at all times. Hence the difference in the principle of this method from all previous antiseptic

measures, In the latter a temporary, and for a time, very energetic contact action of the antiseptic may take place, but in consequence of the formation of almost insoluble compounds between antiseptic and tissues subsequent action is prevented.

If the experimental proof of the constant action of Formalin-gelatine is doubted, the pre-eminent clinical utility of this material for healing wounds must be recognised. With the aid of this powder all acute purulent processes are overcome and a guarantee is afforded for the aseptic course of the wound without further measures. I have employed it without drawback in 120 cases of acute purulent processes, in 93 aseptic wounds, in 4 compound fractures, and in 2 deep scalp wounds.

At the same time I would mention that instead of the strict aseptic measures usually adopted, even in the most complicated wounds only mechanical purification was carried out and the powder carefully dusted over all the wound, with the effect that in all cases the purulent processes were stayed within 24 hours, the compound fractures healed aseptic and without fever, and in all cases of aseptic operations the presence of the powder afforded a guarantee for uninterrupted healing.

In presence of fresh blood and in clean wounds the power forms in a few hours an absolutely dry and very firm scab. In fresh purulent cases, if no necrosis of the tissues is present. the formation of pus ceases completely within 24 hours and frequently pure serum instead of pus flows from the wound. Such wounds always remain soft and unreddened round the edges. Furuncles, carbuncles and phlegmona can be brought under control in 24 hours so far as the powder comes into contact with healthy or inflamed tissues; at the same time it is characteristic that the blood in the bandage remains bright red, which proves the liberation of Formalin, which alone possesses this property of keeping the red blood corpuscles.

Production of pus, if no necrotic residues are present, is stayed at once and the healing process shortened. If necrotic tissue is present, as in old ulcera cruris and in tuberculous and luetic infections, the Formalin-gelatine remains inactive but developes its properties all the more in acute inflammation and is a prophylactic to infection. Fresh wounds I no longer disinfect, but leave their healing to the activity of the tissues. The healing of wounds is so satisfactory that the most critical eye can detect no fault therein.

Experimental investigation of the new vulnerary by my friend A. Gottstein showed that hydrochloric acid pepsine solutions are in like manner able to decompose Formalin-gelatine outside of the organism. This discovery extended the application of Formalin gelatine to the treatment of wounds where the automatic development of the antiseptic failed, namely where necrotic tissue and masses of dried secretion prevented the gelatine coming into contact with the healthy tissue.

In such old wounds the powder should be scattered over the wound as usual, and then moistened with

Pepsini	75 grains.
Acidi hydrochlorici	5 minims.
Aq. dest	4 ounces.

The ferment effects the decomposition of the molecule and constant development of Formalin vapours, otherwise brought about by the healthy or inflamed tissues, but which the paralysed or necrobiotic-cells are unable to do.

To summarise briefly, we possess in powder form a remedy, which in contact with clean wounds forms a firm scab, without other disinfectant measures, in the course of a few hours, so that primary stitched wounds are in the shortest possible time covered with a protective layer which prevents infection. The Formalin-gelatine is further able, by the molecular antisepsis set up by cellular activity, to destroy bacteria present in the tissues, and enables the cellular tissues to rapidly become masters of the situation. The Formalin-gelatine stops acute purulent processes with great certainty, if after incision and application of the powder the production of tissue and liberation of Formalin vapours is allowed to go on undisturbed; in presence of much necrotic material the cell activity can be supplemented by digestion with pepsin-hydrochloric acid.

Formalin-Gelatine, manufactured by the Chemische Fabrik auf Actien, vormals E. Schering, Berlin, Germany, is introduced to the medical profession under the name of "Glutol-Schleich." (Therapeutische Monatshefte, Feb., 1896.)

Causes of Death in Pneumonia.

Bollinger maintains that pyrexia and interference with the functions of the lungs rarely in themselves account for the fatal issue in pneumonia. The temperature is seldom so high for a sufficient space of time as to entail serious consequences, and the affected areas of lung-tissue are rarely so extensive as to hamper the action of the lungs. Pulmonary œdema, often seen *post-mortem*, is rather a result of the heart-failure immediately preceding death, than a cause of death by itself. The phenomena of collapse at the crisis are probably due to oligæmia, a diminution of the total circulating fluid; this in turn causing defective nutrition of the muscular substance of the heart, which is already enfeebled by fever and overstrain. With this, there is a simultaneous cerebral anæmia, acting on the medullary centres so as to enfeeble their influence on the cardiac innervation. The author attributes the oligæmia to the quantity of the pneumonic exudation itself, which in the graver cases under consideration may constitute a regular internal blood-letting, amounting to a proportion of 3·3 or 3·8 of the total body-weight. He recognises, however, pyrexia, and the absorption of toxic products, as possessing an important influence on the prognosis. To counteract oligæmia, he suggests the intra-venous injection of artificial serum.

Diet in Diseases of the Skin.

Dr. Smith sums up as follows the diet in skin diseases. He says: (1) Very few skin diseases are directly traceable to dietetic causes, but improper diet may aggravate existing eruptions. Idiosyncrasy may be largely allowed for. (2) The diseases that may so arise are of a transitory character, and mostly belong to the class of erythemata. (3) Diet has very little influence in promoting the cure of cutaneous eruptions. The results are far behind popular expectations, even in such cases as acne rosacea, where we are led to hope for much. (4) Avoidance of alcohol, regulation of the bowels, and the cure of anæmia are of infinitely greater importance than special dieting in the management of diseases of the skin.

Affections of the Heart in Tuberculosis,

According to Prof. Leyden tubercular pericarditis, which Bamberger erroneously pronounced to be incurable and impossible to diagnose, is not such a rare affection in hospital practice. Tachycardia and cyanosis suggest cardiac failure. Sudden death may be due to the state of the heart or to embolism of pulmonary arteries. Rokitansky believed the heart to be small in phthisis, and he maintained that all cardiac affections (particularly incompetent mitral valves) which produced pulmonary congestion excluded tuberculosis. The size of the heart has lost its importance now that we know for certain the real cause of phthisis; and according to Fromholtz, of the valvular affections found in phthisis, stenosis of the pulmonary artery is most frequent, disease of the aortic valves is less often found, and least frequent is mitral disease, but the difference in the frequency is not great. The muscles of the skeleton are known to be immune as regards tuberculosis, and though the heart muscle has been proved to be affected, it is very rarely so. The pathological changes in the heart associated with phthisis are not directly dependent on tuberculosis. The right ventricle is thin-walled, flabby and frequently somewhat dilated. Sometimes there is fatty degeneration. Pigmented atrophy has been observed, but fibrinous degeneration is rare. Endocarditis tuberculosa of the valves is very interesting. Since Heller, Cornil and Kundrat found tubercle bacilli in the warty vegetations many articles on tubercular endocarditis have been published. In one of Leyden's cases, where a recent ulcerative endocarditis was found with tubercular lungs, streptococci and not tubercle bacilli were found in the heart, but in four other cases tubercle bacilli were demonstrated in the valves and endocardium; one of these four has suffered from rheumatism of the joints. Of exceptional interest is the discovery, by Birch-Hirchfeld, of tubercle bacilli in the thrombi, formerly called polypi of the heart. Ketlar found bacilli in two museum specimens, and in a case of Leyden's Dr. Michaelis found tubercle bacilli in a thrombus adherent to the wall of the left ventricle. Tubercle bacilli, both in the thrombi attached to the walls of the heart, and in the endocardial vegetations, are mostly found embedded in cells. A second important fact is that tubercle bacilli can be deposited and grow in thrombi. Just as leucocytes carry bacilli into the interior of thrombi, so they may occasionally infect croupous exudations in the pulmonary alveoli. Such a case of pneumonia, instead of coming to a crisis, becomes chronic, and the cheesy infiltration breaks down into cavities.

A Doctor's Carbuncle.

I thank you for the box of Sennine. It came just in time for me to try it on myself in a malignant Carbuncle, which had caused me much suffering.

It affords me pleasure to state that Sennine has benefitted me more in three or four days than any of the many Antiseptics I have used, among which were Iodoform, Antifebrine and Aristol, so you can see that Sennine has the best standing with me, and I cheerfully commend it to my brother practitioners.

Yours very truly, R. M. Wells, M. D.,
Dios Chemical Co., St. Louis, Mo. Plant City, Fla.

Neurasthenia.

Neurasthenia, says Hersckill, may be described as a generalized affection of the whole nervous system, characterized by dimunition of nerve energy and increased reaction to external impressions. It may exist alone, or may be associated with other affections. The objective signs are few, but there are a very large number of absolutely characteristic symptoms. The patient, fortunately, does not suffer from all of these, but only from a selection from the list. These are invariably associated together to form a well-marked group pointing to functional disturbance of one or more organs of the body. It happens, therefore, very often in the practice of medical men. who are not familiar with the subject, that cases of this kind are treated merely as local functional disturbances, instead of as a local expression of a general constitutional condition, and the patient "does not respond to treatment." The extreme importance of a knowledge of the phenomena of neurasthenia to the practitioner will be manifest when I say that as the resnlt of my own personal experience I have found that at least one-third of all the patients who come to consult me, either with "indigestion" or thinking that they have an affection of the heart, are really suffering from neurasthenia, manifesting itself in the gastro-intestinal tract or heart respectively. In making this assertion I believe that I am much under the mark in my figures. And I have no hesitation in asserting that the success of a man in a high-class practice, will be in direct ratio to his knowledge of neurasthenia, and to his ability to unravel the true pathology of the cases which may come under his observation. He must recognize the fact that although the symptoms in different neurasthenics will all bear a family likeness, and in many instances may be identical, yet the causes, or mechanism of the production of the symptoms may widely differ.

Aids in Colotomy.

There are two causes of shock in colotomy (Chicken) which are sometimes needlessly incurred: (1) Delay in finding and identifying the colon; (2) the adoption of a protracted method of operation.

Very often the operator will experience a difficulty in finding a comparatively small colon, unless he has a definite guide for at once localising it. Coil after coil of small intestine will bulge out of the wound, the part wanted never presenting. This difficulty is obviated by remembering the line of attachment of the mesentery to the posterior abdominal wall. If, therefore, we pass our finger through the wound into the abdominal cavity, keeping close in touch with the peritoneum as it sweeps round the ilium towards the spine, we come at once on the mesentery of the colon, and of course attach to it the large gut. It is very simple and easy, and in some cases will save much time. Generally the very disease for which we perform colotomy gives us a distended colon, so that its recognition is comparatively easy, but it is not so in all. I recently in a colotomy found a sessile colon. The intestine was tightly bound down to the abdominal wall by the peritoneum, so that I had to tear through that membrane in two places before the colon could be lifted to the margins of the wound. It never could have presented itself by any means, and had it not been for this ready method of recognising it by its mesenteric attach-

ment, much valuable time would have been lost. The quickness with which the operation is done is of great importance; the selection, therefore, of one requiring much tedious and useless stitching is to be avoided. The hold which these sutures have on the peritoneum is so exceedingly tight that they can be of no practical utility.

Psoriasis.

Bulkley considers that psoriasis is a constitutional, rather than a local malady, and draws his deductions from an analysis of 366 cases. He considers that physicians are too often satisfied with simply removing the eruption, without considering, and trying to cure the underlying cause. He finds that, with regard to frequency, the disease appears in about 4 per cent. of all skin disorders, and belongs to the early period of life. While heredity has relatively little importance, the evidence increases that psoriasis is more or less closely allied to the blood states known as gouty and rheumatic. In many cases the urine is hyper-acid, and contains deposits of urates, oxalates of lime, &c. Attention to the condition of the urine is of great importance in the treatment of cases where the eruption is of a congested variety.

In the treatment of psoriasis, Jamieson recommends the application of salicylic vaseline to remove the horny accumulations, to be followed—when the skin is free from scales—by the application of the following ointment: R. chrysorobin, grs. 25; salicylic acid, grs. 10; ichthysol m, 25; green soap, 1 drachm; and vaseline, 1 ounce. He does not consider that the administration of arsenic can be regarded as curative, but states that the greatest benefits are gained by its means in first attacks, in psoriasis of the head, and in constitutional cases. He gives a warning against the use of thyroid extract, unless the patient is under the care of a trained nurse or in the hospital.

Coffee Intoxication.

Gilles de Tourette calls attention to the fact that chronic coffee-poisoning is much more common than is generally supposed, and is generally confounded with alcoholic disturbances. The poison acts principally on the stomach and the nervous system. The coffee dyspepsia resembles the alcoholic very much; there are as symptoms morning expectoration of mucus, pain in the epigastric region, and marked anorexia. The disgust for food finally becomes so great that the patient can only take coffee, or bread soaked in coffee, and in this manner the poisoning radidly increases in severity; nausea and vomiting, with acid pyrosis, next appear, and the patient becomes much emaciated. On the side of the circulation a slowing of the pulse is usually observed, palpitation being rare. The nervous symptoms are marked. Incomnia is common, or if sleep occurs it is often accompanied by terrifying dreams. General tremor is often present, with fibrillary twitching of the lips and tongue. Cramps in the limbs may occur. The general sensibility is diminished in a certain number of cases. Paralyses have not been observed. In children, arrest of development takes place. The stoppage of the coffee generally results in a rapid cure, much more rapid than from similar troubles due to alcohol.

Curetting in Infected States of the Appendages.

Dr. Ballantyne (Edinborough Medical Journal) says: I am well aware that I am treading on dangerous ground when I speak of curettage for disease of the Fallopian tubes, and I have not yet deliberately curetted a uterus with the intention of draining pus-containing tubes. The operation is still *sub judice;* in fact, there are some who would regard disease of the appendages as an absolute contra-indication to curetting even for simple uterine hæmorrhage. Whilst not sharing in the view of these gynecologists, I find it difficult to see how pus-containing tubes can be drained through the uterus, for this of course is the rationale of curettage in such cases; and my reason for thinking so is that in the observations on a considerable number of diseased Fallopian tubes which I made in conjunction with Dr. J. D. Williams some time ago, the uterine orifice of the tube was invariably found blocked in hydro-, hæmato-, and pyo-salpinx. Still, certain cases which have been reported make one pause before making any definite statement on this point. Thus Liell has recently given the details of a case in which a double pyosalpinx evacuated through the uterus; laparotomy, which had been meditated, was abandoned, and curettage was performed instead; pregnancy occurred two years later, and the patient was safely delivered of a living child at the full term. Without instancing such a striking case as the above Polk has also brought forward a good deal of evidence to show that before performing laparotomy for recurrent salpingitis and peritonitis, it is well to give the patient a chance of the benefits that may and sometimes do follow curetting. Even if the operation fail the woman is in a better state to undergo laparotomy. Polk does not seem to be so sanguine as to expect any improvement to follow curetting when there is an abscess in the ovary as well as pus in the tube. Whether or not subsequent events confirm the teaching of Polk and others, their practice has done some good in checking the wholesale invasion of the pelvis by abdominal section, and in turning again the minds of gynecologists to more conservative methods.

The Third Stage of Labor.

The third stage of labor, says Bufour, is the period of greatest anxiety to the accoucheur, and yet it is the stage about which least was known, up till recent years. The accepted view was that separation of the placenta began in the second stage, and that hæmorrhage was a factor in its production. A study of uteri removed by Porro's operation led the author to the opinion that separation did not occur till the third stage commenced, that its texture accommodated itself to the shrinking of the uterus, that there was no space in the uterus into which the placenta could bulge, and no evidence in support of retroplacental hæmorrhage. These views are now supported by examination of frozen sections from patients that have died during the 2nd and 3rd stages of labor. These sections prove that there is no detachment before the third stage, hence the absence of bleeding—a rational explanation of the arrest of hæmorrhage, by a retraction of the muscular uterine walls, and compression of the blood vessels prior to the separation of the placenta; an accurate knowledge of the relation of the uterine wall to the placental mass; and its expulsion in the direction of least resistance.

Anti-Typhoid Serum.

Dr. Chantemesse, of the Pasteur Institute, has succeeded in discovering an anti-typhoid serum, and has proved its efficacy in two cases! Three years ago, experiments made by Dr. Chantemesse and Dr. Widal failed, owing to the insufficient strength of the virus employed. Since then the former has succeeded in procurring a more intense "culture," with which he has made successful experiments. The serum which Dr. Chantemesse has now obtained has been tried on two patients suffering from typhoid. The "immediate" result was that the disease yielded to the treatment, and that the patients were soon convalescent. If the value of the remedy has been manifested only in two cases it is early days to speak of it as a cure for typhoid. It is not improbable that the cases were not typhoid. In hundreds of the cases said to have been cured by anti-diphtheritic serum, the disease in all probability has been merely some form of tonsillitis. "Patient and laborious research" in quest of serum cures for such filth diseases as typhoid, is simply wasted energy. The only scientific method to eradicate filth diseases is to get rid of filth. The hunt for serum cures is more likely to result in our having filth diseases always with us.

The Action of Electricity on the Healthy and Diseased Stomach.

From numerous and careful physiological experiments Dr. Goldschmidt infers that direct faradisation or galvanisation, even with strong currents, has merely an inconsiderable and inconstant influence on the peristaltic movements, and does not in the least affect the gastric secretion. He gives a summary of thirteen cases of dilatation of the stomach, chronic gastritis, gastralgia, atony, hysterical vomiting and cancer of the pylorus, treated by endofaradisation or "galvanisation." The therapeutic results were as follows: (1) Direct electrisation of the stomach is a very successful remedy for counteracting nervous disorders of the stomach, and even in disorders based on organic lesions it may be of service; (2) though a clear distinction between the action of endogalvanisation and endofaradisation does not obtain, yet the former is to be recommended in cases of painful, and the latter in functional, disorders of the stomach; (3) on account of its caustic action a strong galvanic current is contra-indicated; (4) the exact action of electricity in diseases of the stomach is not understood.

Multiple Neuritis.

Dr. Græme M. Hammond has recorded a series of ten cases of multiple neuritis. The patients were all under five years of age, and most of them under two years. Eight of them were attacked with very similar symptoms during the months of June and August of last year, and the illnesses ran a very similar course. For these reasons Dr. Hammond is inclined to trace the outbreak to some common cause, probably of an infective nature. The lower limbs were the parts chiefly affected, there being complete motor paralysis and tenderness, which was most marked over the large nerve trunks. The paralysis tended to spread to the upper extremities, and one case proved fatal from involvement of the medullary

centres. Treatment did not seem to have much effect on the course of the disease, which usually terminated in recovery in from three to four months.

"Etiological Factors in Relation to Different Forms of Chronic Bright's Disease."

Brown (Iowa State Medical Society) says: We consider chronic Bright's disease as an organic renal affection, characterized by albuminuria, dropsy, and derangements of the nervous system.

1st. Considering the threefold anatomical structure of the kidneys of first a secreting apparatus composed of malphigian bodies, with their epithelial lining.

2d. Fibrous tissue giving solidity and strength to the structure and binding firmly together the different parts of the organ.

3d. An abundant supply of blood-vessels permeating the organ, with some of the smallest entering into the malphigian bodies.

Furbringer's classification is used, all renal inflammations being placed under two heads.

1st. Diffuse nephritis.

2d. Circumscript nephritis or suppurative inflammation of the kidneys.

The first only is considered, being subdivided into,

1st. Acute kinds of inflammation (including active hyperæmia of the kidneys and febrile nephritis).

2d. Chronic forms without decided atrophy.

3d. Chronic forms with decided atrophy.

4th. Amyloid kidney.

As in some cases chronic Bright's disease is derived from the acute form of nephritis, some of the causes of acute inflammation, such as exposure to cold, scarlatina and other infectious diseases are considered. Attention is given to special causes of chronic nephritis with and without atrophy, the causes being in some cases the same as for acute nephritis, and in others causes acting more slowly, as contiuued use of alcohol, depressing influences of bodily fatigue, mental depression; anything lowering vitality, a vitiated blood stream from other diseases, toxines derived from micro-organisms.

The causes producing the various forms of nephritis are arranged under four separate heads.

1st. Overtaxing the kidneys by an undue afflux of blood, or compelling them to do the work of other excreting glands, such as caused by checking perspiration by application of cold to the surface of the body.

2d. Poisons developed in the body by micro-organisms belonging to other diseases, and acting as renal irritants as they are carried to the kidneys by the blood stream.

3d. Matter taken into the body from without, such as alcohol, turpentine, arsenic, or cantharides, thereby producing vitiated blood, and this in turn causing renal irritation.

4th. Anything tending to produce lowering of the vital forces whether it be long continued muscular fatigue, mental worry, or depressing influences of the nervous system, especially if combined with undue exposure to cold and dampness.

Sequels of Influenza.

The sequels of this disorder (Duckworth British Medical Journal, April 4) have only been studied with care in the course of the epidemics which have prevailed in the last seven years. They escaped the attention of the older observers. They are very numerous. It may be fairly affirmed that many of the gravest characters of the malady occur after the acute stage has passed away, and when convalescence is apparently assured. I think there has possibly been exaggeration in respect of some of the alleged sequels of influenza, still they are, as I have said, numerous. The general asthenic type of the disease is well recognised. The enfeebled mental and bodily states left behind it have been forcibly and sadly brought home to most of us of late, both in our own persons and in our patients and friends. Recognising the fact that each epidemic is signalized by a dominent form for the most part, we may discuss the particular sequels attending, first, the thoracle; secondly, the gastro-intestinal; and thirdly, the nervous varieties of influenza. The personal factor comes in here strongly in respect of each individual affected, and as has been said, "each patient convalesces according to his temperament," and, no less, I would say, his diathesis. Nearly sixty years ago, Sir Henry Holland noted the long persisting influence of this disease upon the constitution as a remarkable feature; also the variation of parts affected in different individuals, or at different periods in its progress. In respect of sequels ensuing on the theracic forms, we may note the prolonged course of the peculiar broncho-pneumonia, so often fatal to the weakly and the aged in its earlier stage. Next the onset of tuberculosis. Abscess of the lung has been several times met with supervening on pneumonia, and Pfeiffer's bacillus has been found in the yellowish brown sputa expectorated from it, together with elastic fibres from the lung.

Pleurisy is common and empyema may result. The heart is often severely infected. Great weakness of the organ is common; arrhythmia, bradycardia, tachocardia, and pseudoanginal attacks may occur long after the illness. Vertigo is a very frequent symptom, a tendency to it persisting for some months after an attack. The gastro-intestinal variety of influenza may lead subsequently to vomiting, simple catarrhal jaundice, chronic gastro-intestinal catarrh, diarrhœa, or constipation, with marked nervous depression. The nervous variety is apt to lead up to many subsequent troubles. A rapid denutrition of nerve centres is more or less common in all cases presenting any severity in the early stages. Neurasthenia may prevail for one or two years subsequently. Polyneuritis is a common sequel. The arms may be paralysed with both motory and sensory disturbance, and wrist-drop may occur; moreover, the same process may occur over large areas. Neuritis may involve cranial and other nerves locally. Encephalitis, myelitis, sclerosis of various tracts of the spinal cord, neuralgia, especially the intercostal variety, conjunctivitis, iritis, otitis media, mastoid abscess, malignant endocarditis, parotitis, orchitis, and lymphadenoma, with many other affections, have been noted among sexuels in various recent epidemics in all parts of the world. Somnolence, or extraordinary drowsiness with hebetude, is a noteworthy feature. Headache, vomiting, and various mental disorders may occur. Melancholia leading to suicide is by no means uncommon. Mental incapacity long remains and many patients affected in middle life tell of in-

ability for efforts, mental and bodily, that were easy to them previously. They feel many years older in all respects. The natural level of health may never be regained, or not fully re-established for two or three years after a severe attack. Abscess of the brain has been several times noted as a sequel, also simple lepto-meningitis. Mental affections may also sometimes subside after an attack. The sequels of this disease are doubtless often very varied, and often extraordinary. A medical friend of mine has been unable to take coffee since he suffered from a severe attack in February, 1895, without feeling cocsiderable cardiac discomfort, although there was no arrhythmia, and the heart sounds remained normal. In his case, too, and in another there remained for months subsequently a liability to paroxysms of low temperature, with extreme chilliness and distressing sensations; observations made in the mouth, axillæ, and rectum recording a temperature of only 96°. Such attacks continued to occur once in every eight or ten days, and not infrequently in the night. (Nothing afforded so much relief as an ounce of whisky taken as hot toddy)

Influenza, in common with other infectious diseases, distinctly ap apears to predispose to the onset of other diseases. The lowered vitality induced by the primary malady leaves the patient a more ready prey to the attack of any other he may be exposed to. Or a distant interval may elapse between the one disorder and the other. Translated into the language of today, we may substitute for the term "lowered vitality" a condition of the solids and fluids of the body in respect of their powers of resistance to invasion by specific toxins which is unequal to the struggle between them and the infection. It is also conceived by Broadbent and others that germs of disease may lie latent in the body and remain inoperative till the resistance of the host is impaired by some circumstance such as infectious or other illness, or traumatism, which forthwith liberates the latent germs with the consecutive onset of a fresh ailment. The occurrence, so frequently, of tuberculosis after injuries and infectious fevers, may possibly be explained in this way, also the development of tertiary syphilitic disorders.

Relapses of influenza are commonly met with, and may occur several times at fairly long intervals after the primary infection and long after the original epidemic has passed away. We may doubt the occurrence of fresh infection from without, as by sporadic influence, in many such instances, and I think we may consider as probable a view of this matter, for which I am indebted to our Registrar, Dr. Edward Liveing. He conceives it to be not unlikely that the toxin of influenza may act very much as does that of malaria, leaving behind it residues of specific infective matter, which wake up into activity from time to time, and induce fresh outbursts of the disease in response to any conditions which temporarily lower the general vitality of the body. We may thus regard such relapses as evidences of sequels of the direct residual class. I have experience of cases in which four or five attacks have occurred within two or three years, and at varying intervals. The conditions in respect of symptoms, type of pyrexia, and general character leave no doubt as to the true nature of the disorder, and intelligent patients, in three cases in the persons of well-known members of our profession, have recognised only too well the specific qualities of it.

Acute bronchocele has been several times observed to follow

influenza. One lobe may become greatly enlarged and give rise to dyspnœa or orthopnœa, with a fluctuating tumour. Incisions give exit to viscid fluid, with relief to the symptoms, but the discharge may continue to flow for months. One of the most remarkable cases I have seen occurred in a gentleman, aged 68, in whom great wasting had occurred in the pectoral muscles. This followed an attack of influenza nine months previously. Twenty-eiget pounds weight had been lost during that time. The ribs were plainly visible. There was marked difficulty of inspiration, and the upper portion of the chest hardly moved. There was no myxœdema. The brachial muscles were soft, but those of the lower limbs were firm. There was general weakness and early fatigue on walking. Improvement slowly followed treatment by massage, warm douching, and dosage with strychnine, phosphorus. and arsenic. This man was at one time apparently in peril from respiratory difficulties. There was evidently some focal myelitis in the cervical portion of the cord. Recovery ensued after treatment. Bladder troubles may set in and persist after an attack. Diabetes has been several times observed as a sequel. Arthritis and multiple synovitis sometimes follow influenza. At the outset of many cases it is sometimes difficult to be sure that rheumatic fever is not in progress. There may be pains in joints and pyrexia. The two disorders may even occur together and lead to a very grave condition, owing to carditis. Cases have been carefully observed in which symptoms of myelitis, involving several tracts in the cord as well as the cornua, have led to arthritis or true spinal arthropathy.

At the meeting of the British Medical Association in August, 1895, Herbert Snow, M. D., Surgeon London Cancer Hospital, spoke of Loretin, the new surgical powder, as follows:

"My own experience is confined to the powder, which I have never found occasion to mix with any other substance. Dusted over the skin, or over a granulated wound, this causes not the slightest irritation or unpleasant sensation. It immediately destroys the malodor of the most fetid cancerous sore, controlling pain in a manner which no other agent I have yet tried will do. Copiously puffed with an insufflator into the deep cavity formed by evacuating the axilla of carcinomatous glands, it efficiently precludes suppuration, even when free hemorrhage has taken place after the closing of the wound, an occurrence almost inseparable from anesthetic vomiting, when the patient has been removed from the operating table. Not the slightest bad symptom from its employment in this way has so far been detected. When there is no deep cavity a wound dusted with loretin heals rapidly by first intention. I have had recourse to Loretin in some sixty cases, mainly operations on breast and axilla, notoriously a test region for antiseptics. In my hands it has proved an ideal antiseptic, and deodorant, with no single drawback; and I am sure that no surgeon who has once tried it will again resort to the noisome and toxic iodoform, from the free use of which I have seen more than one death. Though when old and established agents answer the purpose sufficiently, I have a strong prejudice against novelties, yet this substance—non-poisonous, devoid of smell, and absolutely preventative of suppuration—seemed to me so marked an advance upon anything previously brought forward, that I felt constrained to direct thereto the notice of the Section."

Croup.

At the meeting of the Tennessee State Medical Society, held in Chattanooga, April 14th to 16th, Dr. G. W. Moody, of Shelbyville. read a paper on croup. He said croup, as commonly used, is a term applied to different pathological conditions. According to the pathology and anatomical lesions there are three classes: Subacute catarrhal laryngitis, acute infiltrative laryngitis, and acute exudative laryngitis. There is a degree of inflammation in each of them, and an element of spasm in all of them.

In the worst form of exudative laryngitis the spasm contributes to laryngeal stenosis. Sometimes it is very difficult to distinguish infiltrative laryngitis from the exudative. Diphtheria and exudative laryngitis are too distinct diseases. The distinguishing characteristics are: Diphtheria is contagious and epidemic; croup is non-contagious and sporadic. Diphtheria is a constitutional disease; croup is local. In diphtheria the exudation is imbedded in the substance of the mucous membrane; in croup it is upon the surface. In diphtheria the laryngeal symptoms are preceded by constitutional symptoms and by exudation upon the pharyngeal walls; in croup the laryngeal symptoms are primary. In diphtheria the sub-maxillary glands are enlarged, with connective tissue swelling; in croup there is no external swelling. In diphtheria the Klebs-Loeffler bacillus is found in the exudation; in croup this bacillus does not exist. Paralysis is a sequela of diphtheria; it is not a sequela of croup.

As to treatment, the indications are to correct gastro-intestinal disorder, relieve spasm, limit inflammation, infiltration, and exudation, promote the disintegration and removal of inflammatory products, support the patient, and as a last resort, surgical measures for relief of laryngeal stenosis. The indications are best met by ipecac, calomel, veratrum, carbonate of ammonia, turpentine, alum, and tracheotomy, or intubation. Veratrum and carbonate of ammonia and calomel are emphasized as useful remedies in infiltrative and exudative laryngitis. Veratrum limits infiltration and exudation, and its anti-spasmodic influence relieves paroxysms of dyspnœa. Ammonia by contributing to liquefaction of fibrin in the blood limits infiltration and exudation, and promotes disintegration and removal of inflammatory products. By its stimulating action upon the respiratory centre it relieves dyspnœa, and by its stimulating action upon the vaso motor system it counteracts the depressing influence of veratrum. These two remedies in combination are eminently useful. Cases of successful treatment are reported.

"Infective and Tubercular Osteitis as Causes of Arthritis in Childhood."

Prof. Macnamara has summed up the present state of our knowledge of these affections. He recognises that in both the acute and the chronic forms the disease is dependent on the action of micro-organisms in the growing cancellous tissue at the ends of the diaphysis. From this as a starting point there may follow local changes, acute or chronic (tubercular) arthritis, &c., or general systemic infection, septicæmia, tubercular meningitis,&c. The treatment in the acute infective cases must be radical—namely, a free incision down to the bone over the diseased area, a free opening into the medullary cavity by means of a trephine, followed

by irrigations of the parts with antiseptic lotions and drainage. In the chronic forms he does not consider that the old treatment by rest has given satisfactory results, and recommends that, as soon as a diagnosis has been made, an operation should be carried out similar to that mentioned above. In making the diagnosis in tubercular cases the exact site of the lesion is somewhat difficult to determine, but aid is afforded by the detection on careful examination of some persistently tender spots which indicate areas of tubercular osteitis, and must be thoroughly eradicated.

The After Treatment of Operations upon the Rectum.

In the after treatment of rectal cases which have been subjected to operation measures difficulty is often experienced in obtaining prompt healing of the wound. And when it is remembered how difficult it is to keep wound-surfaces in this region of the body in an aseptic condition, and to protect them from irritation the protracted course of the healing process in these cases is readily explained. The application of some dry antiseptics is usually recommended after operation for hemorrhoids and fistula in ano, and according to many authors the most available of these is aristol., which in many respects is peculiarly adapted as a dressing in rectal surgery. It is an efficient antiseptic, and yet completely devoid of irritating or poisonous effects. It adheres firmly to denuded surfaces forming a protective shield under which healing takes place without suppuration. Moreover it is an excellent cicatrizant, causing the formation of vigorous healthy granulations and the prompt occurrence of cicatrization. In operations for anal fistula after excision of the fistulous tract and coaptation of the edges of the wound primary union will often occur under a dressing of aristol. This has been especially emphasized by Dr. Robert T. Morris of New York (Amer. Med. and Surg. Bulletin.) It is his custom after dissecting out the fistulæ and suturing the parts snugly with chromicized gut to cover the wound with aristol. He has found that this drug adheres firmly to the wound and is sure that it protects it from infection. He has generally seen these cases heal by primary union except those of tuberculous character. Dr. Lewis H. Adler employs a five grain suppository of Aristol after Lange's operation for fistula in ano and sprinkles some of the dry powder over the wound. In the operative treatment of hemorrhoids aristol is also of distinct value employed in substance or in the form of an ointment. Dr. Manton (The Phys. and Surg.) states that the most successful treatment for capillary piles is the Paquelin cautery followed by an unguent and aristol. According to Dr. W. J. Otis of Boston (Boston Med. and Surg. Journal) the fissure or ulcer of the rectum associated with Hyper-lastic piles is best treated in the following manner: After the ulcer has been exposed by means of a small speculum, it is touched for the first few days with nitrate of silver and then some dry powder as aristol is blown on the surface for the purpose of hastening cicatrization; lastly a small pledget of cotton saturated with the same powder is applied. This will keep the ulcer flat and prevent the rolling in of its edges and at the same time will exert a certain amount of pressure upon the granulations. In this way nearly all ulcers and fissures of the anus can be cured without resorting to forcible dilatation or division of the sphincter ani.

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Consumption Among the Colored Population of the Southern States.

Hubbard (Tenn., Med., Society, April 14) says: As far as I have been able to ascertain, from the testimony of many physicians who practiced in the South before the late civil war, pulmonary consumption was a comparatively rare disease among the slave population, some even affirming that it was entirely unknown.

According to the U. S. Census of 1890 the total number of deaths from consumption in the United States, for the year ending May 31, 1890 was 102,199; of these 84,173 were white, and 18,026 were colored; the per cent. of deaths from this disease being 11.1 among the white population and 15.4 among the colored. In the State of Alabama for the same year the proportion 8.1 white, 12.7 colored, or about fifty per cent. greater.

Recent statistics from Atlanta, Ga., Baltimore, Md., Charleston, S. C., Memphis, Tenn., Nashville, Tenn., Richmond, Va., Macon, Ga., St. Louis, Mo., show that the average proportion of deaths for consumption to that of total mortality is, 10.4 of the white population, to 16. of the colored; or nearly three times as great.

It is generally believed that those of pure African descent are less susceptible to this disease than those of mixed blood.

Among the most important causes of this excessive mortality are the following:

1. Ignorance concerning the laws of hygiene.
2. Unhealthy dwellings, often situated on damp and narrow alleys, reeking with filth.
3. Improper food, lacking in quantity and of poor quality.
4. Insufficient clothing and exposure in inclement weather.
5. Irregular habits and lack of proper amount of sleep.
6. Excessive use of intoxicating drink and other vices.
7. Lack of medical attention and proper nursing.

As remedies I would suggest:

1. Thorough instruction in practical hygiene in all colored schools and higher institutions of learning.

2. Prohibition by law of the use of dwellings, school buildings and churches unfit for habitation; and frequent examinations by competent sanitary inspectors.

3. The sale of adulterated and unhealthy food should not be allowed, especially milk from cows affected with tuberculosis.

4. The use of intoxicating liquors, except as medicine, should be prohibited.

5. Those who are unable to procure proper medical attention should be provided with physicians at the public expense, and hospitals for consumptive patients should be prepared for the reception of those who are affected with this disease.

6. All cases of consumption should be promptly reported to the proper health officer, who should give the necessery instruction as to the best sanitary measures to be pursued; and after the death of the patient the premises ought to be properly disinfected as is done in the case of other contagious diseases.

Rickets.

The question as to whether rickets ever manifests itself for the first time in the later years of childhood, or only reappears at that period in those who have suffered from the disease in infancy, is still *sub judice*, Dr. Edmund Cantley is inclined to support the latter view, and relates a case to illustrate his experience. A female child, aged eleven years, came under his care suffering from irregular pyrexia, muscular flabbiness and wasting, and the active epiphyseal enlargement of the long bones, which is characteristic of rickets. Evidences of rickets had been present since she was four years old. Marked improvement was noted after four months' treatment. A case of congenital rickets is recorded by Dr. Victor Safford. The patient, who was the child of Italian emigrants, was four years old when first seen, and had suffered from birth from weakness and twisted bones. The condition was evidently due to rickets, and the child made a good recovery under suitable diet and codliver oil.

The Causes of Insanity.

Dr. Clouston, of Edinburgh, states that mental disease was the one complaint of which the subjects commonly failed to recognize the need for obtaining treatment. If they did so at a sufficiently early period, he believed recoveries would take place more often and more thoroughly than they did. The moral and mental causes of this disease presented no very novel or striking features. He says that it is an already well-known fact that it is not work but worry that kills, for he had found that, out of eighty-nine cases in which the brain and mind had been upset by mental causes, only seventeen were from over-work, and all the rest, amounting to eighty per cent.. of them were from "mental worry," "domestic troubles," "sorrow," "shock," "adverse circumstances," "too solitary life," "love affairs," and "religious excitement." Of the physical

causes of the disease, intemperance, as usual, headed the list with eighty-seven cases. Influenza still claimed its mental victims, for he had fifteen cases from that cause.

Chronic Gastric Dyspepsia.

K. S. Howlett (Tennessee Medical Society, April 14,) said: Rapid eating and imperfect mastication are the chief exciting causes of all forms of dyspepsia. Mental strain or shock, etc., belong especially to the neurosis. The pathology of functional dyspepsia consists of either an atonic condition or an exaggerated irritability of the nerve supply. Cannot believe that the purpose of the nerves is simply to enable the stomach to recognize the wants of the system and the system to take cognizance of its condition. Believe that a depression or excitement of the nerve supply always brings on disturbance. The pathology of gastritis is simply one of glandular inflammation, with the accompanying results.

In differential diagnosis, the stomach tube gives valuable information and is well-nigh indispensable. Dieting plays an important part in the treatment, but may be too strict and prolonged. After giving the stomach a short rest, more liberal diet should be added as rapidly as possible. Digestion begins in the mouth, and any error as to cleanliness, thorough mastication and insalivatton should be corrected. The hygienic measures consists of taking active though not fatiguing exercise, proper recreation, etc. Lavage, with alkalinized water and simply drinking large quantities of the same, are most useful remedies. In hyperacidity alkalies are called for. In *hypo*-acidity, hydrochloric acid is widely used. Essayist thinks it is often given in too large quantities and for too long a time. An acid on both sides of a secreting membrane is not a condition favorable to osmosis, and the constant supply of this acid from without lessens the power of its secretion. Hence it should be given only temporarily and withdrawn as soon as possible. The same objections apply with still greater force to pepsin. However, the theory upon this and like remedies have been so widely used, is a most unscientific one any way. Creosote is the best antiseptic and antifermentative. Nux vomica is a most excellent tonic, and massage and electricity are beneficial. Cascara is admirably suited for relieving the constipation.

Temperature of the Mouth.

Dr. Lazarus Barlow in his investigations into the variations in the temperature of the mouth in health produced by local applications of heat and cold, show the unreliability of readings taken from a thermometer placed in the mouth. The subject used was an adult male in perfect health, with normal temperature. Dr. Lazarus-Barlow regards, from the clinician's point of view, the following as the most important conclusions of his investigations: (1) Heat and cold, when applied to the mouth, even for a very short time, caused marked variations in the temperature of the mouth. (2) The effect of heat, though less pronounced, is considerably more prolonged than that of cold. In practice, if a great degree of accuracy be required, the author suggests that the temperature never be taken in the mouth unless other parts are inaccessible; but, if only the

mouth be available, then attention should be paid to the following points: (a) One hour, at least, must have elapsed since the last food or drink of any kind, and even in the smallest quantity, has been taken by the patient; and (b) for ten minutes previous to inserting the clinical thermometer, the mouth must have been completely closed. Under such circumstances as these, and under them alone, is a temperature taken in the mouth a reliable index of the body temperature. These conclusions are of importance, and we are of opinion that the mouth had better be used for taking the temperature no longer, and that we should return to the axilla. In one experiment, the temperature in the mouth fell from 98° F. to 93° after a piece of ice had been kept in the mouth for one minute.

The Influence of Alcoholic Excess in Predisposing to Pulmonary Tubercle.

It is strange that any uncertainty should still exist as to the influence of alcoholic excess in predisposing to pulmonary tubercle. (Mackenzie, Practitioner). He further says: Some few years ago I published some statistics showing the frequent incidence of tubercle on drunkards. Where there is a constitutional susceptibility to tubercle alcohol increases it; where it does not already exist, it creates it. D. Kelynack, in the Medical Chronicle, December, 1895, illustrates with cases the well-known fact that in fatal cases of alcoholic neuritis there is associated pulmonary tuberculosis. When he says, however, that it is desirable to treat cases of alcoholic paralysis in special hospitals, in country homes, or in healthy private houses, rather than in general hospitals, he is making a serious imputation against the hygiene of the latter. In a general hospital, where ordinary care is taken regards the disposal of tubercular sputum, there is likelihood of the patient becoming infected with the tubercle bacillus.

Diseases of the aged have abundant interest for any one who will study them. Pulmonary phthisis in old age has always seemed to me a specially interesting subject. Are old people as liable to it as the young? Does it run a different course with them? How often does an apparently obsolete lesion light up in old age into active progressive tuberculosis? Dr. Barie has contributed a lengthy paper on Senile Tuberculosis to the Revue de Med., October, 1895, and January, 1896. His conclusions closely agree with those I arrived at in a paper I published in the Med. Press and Circular, October 5th, 1892. The chronic form with slow progress is the most usual. Its insidious onset and the frequent absence of characteristic symptoms render its existence to be unsuspected. It is very liable to be mistaken for chronic bronchitis, especially as tuberculosis in the aged is often accompanied by emphysema. The prognosis, is on the whole, more favorable than in the case of younger subjects.

Hæmoptysis. contrary to what is usually believed, is not very uncommon among old people affected by phthisis. An attack of hæmoptysis sometimes kills the patient.

Dr. Kilsum—Now, Freddy, if you're a good boy and swallow this medicine I'll give you a dime.

Freddy—Not much you won't. Dad says that you charge him five dollars for every time you come here; so if you want me to help you out you'll have to go halves.

Notes on Senn's Clinic.

(Byron Robinson, March 26th, 1896.) A visit to Professor Senn's clinic from 2 to 5 in the afternoon, twice a week, presents one of the most magnificent views of surgery and even medicine to be seen in any country. To day he started his clinic promptly at 2 o'clock by a succint lecture on the histology of the tubercular and carcinomatous tissue removed at the previous clinic. Some six or eight hand-microscopes, containing the marked specimens; are passed around the audience. These short, practical remarks on the pathologic histology of the removed growth are full of excellent suggestions, clearly presented views and are the basis for prognosis. It teaches a habit of investigation and is a valuable addition to his clinic. The clinic is supplied with such vast and varied material that it would be useless to attempt to report all the work done in these three hours. I will make a few remarks on the surgery relating to the abdomen and note one or two other cases.

He presented three cases of hernia operated on during four weeks previous. Two of these were performed according to Bassini's method, and covered with iodoform collodian, which dries to a crust and is left on from a few days to ten days. He uses cat-gut in his work, and the cases are slowly and systematically operated on in the amphitheatre to demonstrate methods. The results of the operative procedures are continually presented at the clinic until ready to return home. One of the hernia cases was for Cryptorchitis. The testicle had only partially descended in the inguinal canal and had then formed a diverticulum. Prof. Senn in this case took a part of the diverticle and made out of it a tunica vaginaliis, destroyed the remainder of the diverticle with the Pacquelin cautery and finished the operation by the Wolfler method. He made an external ring by the pucker string. In four weeks the displaced testicle was quite well descended into the scrotum, and the patient was walking about. These three hernial cases presented excellent results, the wounds healing by primary intentions.

One of the most interesting cases to the abominal surgeon was a patient in which Dr. Senn had performed nephrotomy on the right side. The patient came into the hospital some four weeks ago. He was very ill, and a right-sided swelling was discovered which was diagnosed as a kidney tumor. The urine was almost entirely checked for thirty hours. He was about to operate, but the patient was dangerously ill from uremia. A little delay occurred, when suddenly the urine came away with a gush. In a few days he became ill again and no urine appeared in the bladder, for, I think, sixty hours. By this time the patient was so ill that he was operated on without an anæsthetic, and nephrotomy performed. A peculiar cork-shaped stone was found and removed, a drain tube inserted in the enormously thick parenchyma of the kidney. Now all urine passed per the new opening, none per urethra, and still weeks after the urine does not flow through the urethra. Now the diagnosis is this, the cork-shaped stone blocked up the mouth of the ureter in the kidney pelvis until it expanded so wide that the stone fell out of the mouth of the ureter and the urine flowed on as usual. Second, the patient has but one kidney—very significant lesson to hasty operators. So far by injecting colored fluids into the incision in the parenchyma of the kidney the ureter has not

been made permeable. I know of one operator who removed the only kidney the patient possessed. One should always feel in removing a kidney that it is the only kidney and anticipate it by an incision down to the kidney on the opposite side.

Senn's method of disposing of neuromata is unique. He announced that some European investigator had found that the neuromata almost always appeared in scar tissue, and especially fixed against the sawn end of the bone. Senn's method is to amputate the nerve high up into the tissue and then cut a v-shaped wedge out of the distal end of the nerve and unite the two flaps of the nerve with suture so that the sheath of the nerve only is exposed. None of the interior of the nerve trunk is exposed, but all covered in by the endothelial sheath which surrounds the nerve. One case of popliteal aneurism was presented. At a certain hospital relays of persons were employed to digitally compress the aneurism in the popliteal space of the patient. Shortly after the continued digital compression the blood coagulated in the aneurism; an acute inflammation followed with extensive gangrene and sloughing. The patient then went to the service of Dr. Senn, and he amputated the limb at the knee with recovery—a lesson in digital compression of aneurism.

Among many other patients, three cases with uro-genital tuberculosis were shown. One case was diagnosed as descending from the kidney to the urethra; one as the tuberculosis beginning in the epidydemis ascending, and the other as beginning at the urethra and ascending. Senn uses with enthusiasm the iodoform-glycerine emulsion injections with elegant results in these tubercular patients. He makes inter-osseous and parenchymatous injections with the most hopeful effects in the patients of his clinic, where so many tubercular patients appear. For example, he will inject a drachm of the iodoform-glycerine emulsion directly into the epidydemis with a syringe, the trochar of the syringe passing from head to tail in the epidydemis.

He presented two typical cases of ascites, and one case of movable kidney, for his consulting staff to diagnose. Isreal's method of diagnosing a movable kidney was demonstrated, which is that the patient's body is held in an inclined position, with relaxed abdominal muscles, while the physician, partially sitting on the side of the affected kidney, places one hand on the back just below the ribs and the other over the kidney. He then tries to seize the kidney and pull it down. This female patient had a movable kidney, as usual on the right side, and no operation was advised. Hahn, of Berlin, 1882, devised nephrorhapy for excessively movable kidney.

The ascites, which cannot be attributed to local causes as nephritis hepatitis, valvalitis, generally belong to 1, malignancy; 2, tuberculosis, or 3, it may be mechanical, as a large tumor thrashing around in the abdomen may induce ascites.

As one item of this clinic to-day, perhaps a dozen tubercular patients appeared for inter-osseous and parenchymetous injections of iodoform-glycerine emulsion.

In medicine and surgery Senn's clinic is unsurpassed for vast and varied material; for clear exposition of diagnostic methods; for conservatism; for experimental therapeutics; for original and progressive views and for major and minor operations.

Sequels of Diphtheria.

The sequels of this disease (Duckworth, Lancet, April 4) are so remarkable and at times so serious that they have attracted close attention. I cannot discover evidence that these very obvious consequences were witnessed or described by the older physicians. But since diphtheria became endemic in this countrv in 1855 they have not failed to be noted and recognised as depending upon the original malady. The albuminuria which is so common during the active stage of the disease usually passes off leaving no trace of nephritis. But it may persist for two months subsequently. Dropsy is of very rare occurrence in this relation. Parenchymatous nephritis has been noted, but it is open to question whether the disorder thus complicated is not scarlet fever rather than diphtheria. It is certainly very rare. The albuminuria is probably of toxic origin and so far specific. The gravest sequels are paralytic conditions, and the latest researches respecting them plainly indicated that they are due to a toxic neuritis which may be widely spread. These paralyses occur in from 10 to 20 per cent. of all cases. They occur usually in from two to six weeks after the onset of diphtheria and are commonly more marked in adults than in children. They may be local or general. Of the former we note palatal and pharyngeal palsies, strabismus, ptosis, ophthalmoplegia interna, and facial palsy. With some of these may be associated symptoms of general paresis or actual palsy. The general paralyses are of the same nature as the local, and are due to polyneuritis of toxic nature with less of reflexes. The vagus nerve is especially apt to suffer, and the evidence of this is afforded by great cardiac weakness with bradycardia or tachycardia, or by fatal syncope. Vomiting may be troublesome, and may precede the cardiac symptoms. Loss of knee-jerk may sometimes be the oniy sign of nervous sequels. This is, however, always a symptom indicating gravity and demanding vigilance in any case. The sphincters, as a rule, are unaffected. With due care in treatment and an intelligent appreciation of the special dangers of such cases the prognosis is on the whole good. Perfect recovery may be anticipated within three or four months. Fagge records a case in which signs of palatal palsy had remained for four years after diphtheria. Rarely there may persist some enfeeblement of muscles in the limbs. I have a general impression, although unsupported by any figures in proof of it, that the nervous sequels of this disease have been less frequently met with since treatment by antitoxin has been employed. We are fairly justified in anticipating that such may be the case. Recent researches of Sidney Martin and Kanthack plainly indicate that the diphtheria bacillary toxine induces a specific and spreading neuritis in animals, and hence we are justified in the assumption that a precisely similar process occurs in the human subject. According to the observers just mentioned the neuritis of diphtheria is primary, the sheath of Schwann being first attacked and the axis-cylinder of the nerve subsequently. Kanthack has found the bacilli in the spleen and in the lungs. Dr. Pasteur has directed attention of late to the association of respiratory paralysis with cardio-pulmonary symptoms in diphtheritic multiple paralysis. In a series of 64 cases of diphtheritic paralysis serious cardio-pulmonary "crises" occured in 20, and in 17 of these there was associated paralysis of the diapbragm. Most of them occurred between the ages of two and six years. Dr. Pasteur relates the particulars of 32 cases in which the

diaphragm and intercostal muscles were more or less involved and gives an admirable and suggestive *resume* of them. He makes a distinction between cases in which the disorder of the phrenic and intercostal nerves is peripheral and those in which the phrenic nerves are involved centrally or near to their nuclear (bulbar) origin. In the former the diaphragmatic paralysis may develop insidiously and is altogether less grave, in the latter it may come on suddenly, in an acute crisis, with symptoms of dyspnœa and asphyxia, also with transient pyrexia and vomiting. Such cases are almost certainly fatal. Phrenic or intercostal palsy appears, according to Dr. Pasteur, to determine collapse of the adjacent portions of the lung and especially of the base of the right lung.

As indicating the remarkable advance made in pathological and clinical study in quite racent times I may recall here a passage taken from Sir Thomas Watson's classical lectures to be found in the last edition, issued just twenty-five years ago. He remarks: "All these sequelæ are significant of blood poisoning. We cannot suppose that the nervous symptoms—transient and wandering as they often are—can have their cause in any grave or material damage in the nervous centres. They denote, I presume, disturbed nutrition of the tissues from imperfect or altered conditions of its circulating blood." Watson was right in his belief that the nerve-centres were not involved, but the whole subject of neuritis in its many forms now constitute a new chapter in medicine, one for which few materials existed in Watson's time and those the careful observations of Chomel and of Graves, now sixty-eight years old, which might have, but somehow did not, set inquirers upon the track to discover peripheral neuritis.

As indicating how the supervention of a new infection may prepare the way for fresh outbursts of diphtherial disease. I may quote the case, recorded by Dr. Hayward, of a child who, while recovering from diphtheria, was attacked with measles. On the invasion of the latter there was a renewed activity of the lingering diphtherial bacilli with a reformation of faucial membrane. We have already noted how similar trouble may ensue when the vitality is lowered in cases of influenza, measles, varicella, and pertussis. Disorders of the mucous membrane of the nose and otitis are to be included amongst the occasional sequels of diphtheria, also post-nasal adenoid growths. It is probable, if not certain, that some of the post-diphtherial sequels are due, as in other cases, to the results of mixed bacillary infections. The commonly associated bronchopneumonia has been proved by Kanthack to be due to specific bacillary invasion of the lung. Malignant endocarditis is sometimes a sequel of diphtheria.

We are informed that a number of prominent hospitals are using, with great success, in discharges from the vagina caused by salpingitis, endometritis and pelvic inflammation, traceable in many cases to latent gonorrhœa, an admirable Antiseptic in the form of a powder which is said to be perfectly soluble in water, and free from corrosive effects. It is from the laboratory of J. S. Tyree, at Washington, D. C., and the investigations of Professor W. M. Gray, Microscopist to the Army Medical Museum, are said to show that it is an Antiseptic of great value, as it acts specifically upon that distinct form of bacteria which produce so many inflammatory and ulcerated conditions of the womb.

Hydrozone in Purulent Otitis Media.

A Report of a Case Supposed to Involve Inflammation of the Mastoid.

Wm. Clarence Boteler, M. D., of Kansas City, Mo., in Medical Bulletin of Philadelphia, Pa., February, 1896. On November 4th, 1895, I was consulted at my office by Robert P——, aged 24 years, occupation, laborer in the Armour Packing Company. The patient complained that for about four weeks he had been suffering from intense pain in his left ear, making it impossible for him to sleep at night, or rest during the day. The pain was so severe that at time he apparently lost consciousness and it seemed to extend through his entire brain. Upon inspection, the man's face was found terribly deformed; an edematous swelling the size of one half of an ordinary loaf of baker's bread occupied the usual location of the ear and the surrounding muscles. The auricle of the ear was almost buried in edematous tissue; upon palpation, the part was found intensely tender, and deep pressure evoked expressions of excruciating pain. The integument and sub cutaneous tissue were thoroughly infiltrated. Ichorous; fetid pus was slowly exuding from an almost imperceptible meatus. The patient expressed feelings of chilliness, showing a possible septic contamination of his system. Every indication and sign pointed to possible suppuration of the mastoid cells—tenderness upon pressure over the mastoid being very marked. Efforts to localize the tenderness, whether in external meatus or mastoid, for discriminating diagnosis. was unsatisfactory. I concluded to withhold a positive diagnosis as to whether the condition was purulent otitis media or suppurative inflammation of the mastoid, and used tentative treatment for a short while. I immediately placed the patient under heroic doses of elixir of the six iodides internally. After laborious effort I succeeded in separating the edematous tissue sufficient to admit the introduction of a small Eustachian catheter into the external meatus. Through this, with a small hard rubber syringe, I injected four times daily, about one-half an ounce of hydrozone, allowing it later to drain away, advising hot fomentations. The patient was confined to his bed and the best possible hygienic surroundings provided. In twenty-four hours after the treatment was commenced, the intensity of the odor, amount and character of the discharge had manifestly lessened, the swelling was reducing and the patient feeling better. The edema being lessened, the aperture was enlarged. I now recommended the injection of hydrozone through a catheter of larger calibre, every hour, requiring the head to be kept turned to the opposite side for ten minutes to allow the percolation of the hydroze as deeply as possible into the middle ear, before reversing the position to allow drainage. We continued this treatment for a week, the man's recovery progressing with remarkable rapidity, his pain and the constitutional symptoms having disappeared about the third day. At the end of eight days the swelling had entirely disappeared, his features were again normal, and he expressed himself as perfectly well. An examination, showed a circular perforation of the ear drum the size of a shot, proving that the case had been one of purulent otitis media, with septic contamination of the patient's system, and infiltration of the surrounding cutaneous tissues. Small incissions were made at two different places to permit the exit of pus from the integument. The rapidity with which the disease yielded after the introduction of hy-

drozone through the catheter into the middle ear impressed me with the wonderful value of the preparation; for, struggling with such cases during a practice of seventeen years, I have never seen its efficiency equalled by any medicinal or operative procedures.

The Antiseptic Action of Subuitrate of Bismuth.

Carles controverts the theory that subuitrate of bismuth has a merely mechanical action. Gayou and others have proved that it has a powerful bactericidal action, and the author found that an easily decomposable solution containing subnitrate of bismuth keeps indefinitely. Gosselin and Heret have found it useful for cleaning putrid wounds. To understand its action when given internally one must remember that the purest specimen tends to split up into bismuth oxide and nitric acid when in contact with water. (1) *Action on the stomach.* The oxide, which is in excess of the acid. acts first as a detergent to the gastric mucous membrane and precipitates the mucus, and, secondly, by its special germicidal power. The nitric acid has a tonic astringent and also a special antiseptic action. (2) *In the intestine* it meets with sulphuretted hydrogen gas, which converts it into black sulphide, thus liberating a further portion of its acid, which is again partially transformed into nitrous vapours, the antiseptic action of which has been proved by Giard and Pabst. For these reactions to take place it is necessary (1) that the subnitrate should be pure and not mixed with carbonate; (2) that it should be as finely powdered as possible. This latter point is easily proved in the laboratory. Thus it is not necessary to desert this old remedy for the salicylate, which is twice as costly.

The Vagina and Puerperal Infection.

Romme agrees with the newest German school in deprecating routine injections and frequent exploration in normal labours. The results of simplicity have been very encouraging. Walthard had demonstrated he says, the truth about the vagina and sepsis. The virulence of the vaginal streptococcus in a healthy pregnant subject not officiously treated by the obstetrician and midwife is equal to that of the streptococcus of other mucous membranes, such as the alimentary canal, which lives on normal secretions. In other words, it is not virulent at all, and acts as a saprophyte on healthy tissues. But when the resistance of the tissues is diminished in the vagina,as in the intestine, the streptococcus can act as a parasite, and be as virulent as the special germ, of the same genus, which causes puerperal fever. Hence routine injections are deleterious in normal labour where delivery has not involved true traumatism of the tissues. Digital exploration is to be avoided, as the vaginal streptococcus might be introduced into the previously aseptic but naturally lacerated tissues of the uterus. On the contrary, rigorous disinfection of the vagina is indicated whenever exploration or operative intervention has to be carried above the level of the externum, and in all abnormal labours. It is also needed when the patient has an affection which diminished the resistance of the tissues, such as nephritis, cardiac disease without compensatory hypertrophy, syphilis, diabetes, intercurrent tnfectious maladies, and anæmia.

Changes in the Spinal Cord following Amputations.

Dr. Alfred W. Campbell (Liverpool Med. Institute, March 5) read a paper on the Changes in the Spinal Cord following Amputations, and detailed the changes found in three cases, one being an amputation below the knee and two being amputations through the upper arm. For purposes of comparison sections of the spinal cord from a case in which the entire brachial plexus had been injured in early life were shown. In all cases marked changes in the spinal cord were found in those segments which receive the sensory nerves from the skin and give off the motor nerves to the muscles removed. These changes were hemiatrophy, with universal reduction in size of grey and white matter, without definite sclerosis of special tracts, and a numerical deficiency of the nerve cells in the cornua, but especially in the postero lateral group of the anterior cornu, all on that side corresponding to the amputation. In the case where the leg had been amputated there was a reduction in the number of the nerve cells in Clark's column in the lower dorsal and upper lumbar segment. The peripheral nerves above the site of operation revealed marked atrophic alterations and a filling up of the intervening spaces between bundles by large quantities of fat. The ganglia on the posterior roots presented atrophy of some nerve cells. In the brachial plexus case the hemiatrophy was not so marked and the posterior cornua were symmetrical, a condition which Dr. Campbell explained might be due to the skin being left intact. Referance was made to Sherrington, Head, and Thorburn's work on "spinal localisation," and the wonderful accuracy of the results of these observers as confirmed by these cases was commented upon.

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Excision of a Portion of the Liver for Tumor.

At the Royal Medical Society, March 2nd, Dr. Robson described the removal of the gall-bladder and a considerable portion of the right lobe of the liver from a woman aged fifty-four, the patient having made an uninterrupted recovery. The operation was performed for a rapidly growing tumour of the gall-bladder, which on exposure appeared to be malignant, and as there was only one nodule of the disease evident in the liver, and that in close proximity to the distal end of the cystic duct, it was thought desirable to remove at the same time the portion of liver affected. The mass after removal weighed, without any of the gall-bladder, half a pound. Microscopic examination showed the disease to be carcinomatous. After a description of the method of operating Dr. Robson remarked that the case showed the danger of ignoring the presence of gall-stones, although they might be producing no acute symptoms. He had no doubt that the irritation of such foreign bodies in the gall-bladder and ducts was frequently a direct cause of malignant disease, and in this he was supported not only by his own operative experience, but by the abundant experience of other observers. The after progress of the case was of extreme interest, as not only was recovery uninterrupted, but the patient neither suffered from shock nor had the temperature or pulse above normal. Moreover, she began to improve in her general condition almost immediately, and on her return home, in the sixth week after operation, she had gained strength and weight. The use of the elastic coraseur and other details of the operation had answered so well that Dr. Robson did not think it necessary to recommend any different procedure from the one he had described in any future removal of a portion of the liver.

Decayed Teeth and Puerperal Fever.

Dr. Ross (British Medical Journal, March 14,) says: In certain cases of co-called puerperal infection, with rises of temperature, accompanied or not by signs of local imflammatory processes, such as pelvic cellulitis, effusions into one or both broad ligaments, and peritonitic lesions, there often are grave doubts as to the possible source of the infection. First, as to whether the medical attendant may not have conveyed the virus, or a faulty drain be suspected, or some one or other of the usual accredited sources of infection. Secondly, as to whether or not the actual means employed to prevent infection have not brought about the evils they were aimed at preventing. Supposing that all other sources be proved to be absent, and the usual ones also proved to be inoperative, there still to my mind remains a most potent and oft-recurring cause to be found in actual existence already within the patient herself. There are many cases which can be recalled to the mind where a woman has miscarried in the early months of pregnancy, has obtained the immediate and prompt assistance of a medical man, who has taken every possible precaution known to modern medical science, and yet in a few days serious trouble of an inflammatory and infectious nature will supervene and give great cause for anxiety, if not end disastrously. I venture the opinion that in these cases the cause will be found to be infection locally from the blood stream flowing in an olready injured and partially dentalised part, and the origin to

be in the alveolar border of upper or lower jaw, the exciting factor an inflamed and septic tooth socket, or a discharging sinus from an old stump or stumps.

For some time past I have made it a point to inquire carefully for history of toothache immediately before or directly after confinement or miscarriage in inflammatory cases, and I have invariably been able to find conclusive evidence of the existence of some such alveolar dental disturbance as mentioned.

This, if the case, brings us face to face with a very difficult problem, for there are few women of a child-bearing age who have not decayed teeth, and the question then arises, How can one so deal with these cases as to eliminate a possible source of infection, or, if it already exists, how can its influence be combated? Here clearly opens up a wide vista of great usefulness for the dental surgeon and his speciality.

That one can be infected from one's own blood stream seems undoubted, for it is only necessary to mention acute suppurative osteomyelitis, in which the trouble often arises from a mere contusion of a skin without disturbance of cuticle, yet infection occurs, and with often disastrous results to the subject. Here again there can be a possible origin in a troublesome tooth or decayed teeth. The same perhaps in some mammary abscesses.

An acute alveolar abscess is often followed by suppurative periostitis of jaw, why may not many cases of pelvic infection after confinement, miscarriage, or operation under most aseptic precautions be due to the aforementioned cause?

Nasal Disease Associated with Epilepsy.

Dr. Baron (British Medical Journal, March 14,) describes the treatment of two cases of epilepsy by intranasal operation, and with markedly good effect. He says: I think they are worth noting, as they appear to me to show that the epileptic seizures were due to the condition of the nose.

Case I.—A lady, aged 35 years, came to me with signs of nasal obstruction. I found one nostril packed with polypi and the other with hypertrophy of the inferior turbinated body. She told me of her epileptic attacks without thinking that they could be dependent on the polypi. I cleared her nostrils of growth, and cauterised the turbinated bodies on both sides. The good effect in almost completely stopping the fits was at once apparent. I saw nothing of her for some time, when the fits had again become more frequent and violent, and again polypi were removed. This once more occurred, and again a large polypus was removed. After such clearance of the growth from the nose there was marked alleviation of the epileptic conditions, and on reappearance of the growth the fits became more frequent and violent.

Case II.—This case is that of a young unmarried woman, who has had epileptic fits at her menstrual periods ever since menstruation began. She was sent to me at the beginning of this year by my colleague, Dr. Parker, because he noticed that she was suffering from nasal obstruction. I found that she was always more troubled with signs of nasal obstruction at the time of the period than at other times, and that she had one or more fits, nsually two or three during, and only during, the days of the

menstrual flow. I found very great hypertrophy of both inferior turbinated bodies, in fact, so great that I was able easily to snare off large pieces of them. The relief to the fits from doing this has been remarkable, as the girl had no fits for seven or eight months. During the past three months she has had one fit at each menstrual period, and I find that she has further thickening of the turbinated bodies which needs attention, and I shall cauterise them with the galvano-cautery.

These cases evidently show that amongst the causes of epilepsy the condition of the nose ought to be inquired into, as a possible factor in producing the fits reflexly.

Diabetes Mellitus.

Dr. James (Edinbough Medico-Chirurgical Society, March 14) read a paper on the Blood in Diabetes Mellitus. Most observers, he remarked, had found in diabetes that, contrary to what might be expected in a wasting disease, the blood showed an increase in the number of corpuscles and richness of hæmoglobin. During the last few years he had made observations in a large number of cases of diabetes mellitus. In 13 cases the corpuscles were: over 6,000,000 in 5 cases, over 5,000,000 in 5 cases, over 4,000,000 in 2 cases, and over 3,000,000 in 1 case. The hæmoglobin was over 100 per cent. in 3 cases, over 60 per cent. in 8 cases, and over 50 per cent. in 2 cases. Was this increase the result of a lessening in the amount of water? Were this so the specific gravity of the blood should be increased. He had estimated the specific gravity by Roy's method, but no increase was found. A table giving the results was shown. He contended that the increase in the number of corpuscles was real, not merely apparent, and was an effort on the part of the organism to make up for the great loss of oxidising material to the tissues by increasing the oxidising power of the blood. In support of this view he pointed to the effects of starvation, the loss of corpuscles and hæmoglobin being small in proportion to the other tissues of the body. Additional evidence was found in the digestive power of diabetics; he thought nature tried here to make up for the loss of oxidisable material by increasing the primary digesting power. It would be interesting to know, Dr. James said, if the condition of the blood has any relation to the course of the disease. In his experience the blood was richer in the more vigorous cases, but little could be said on this point.

Bakeries and Disease.

At a recent meeting of the Public Health Association of Berlin, Dr. Jiirgensen read a paper on the hygienic conditions of bakeries, pointing out that in nearly all countries the conditions of milk supply and meat supply had been made much more wholesome during recent years, but that bakehouses, were still very defective from a hygienic point of view. According to the "Lancet," which gives the substance of Dr. Jiirgensen's paper, the author gave it as his opinion that the public do not show much interest in this question, but would undoubtedly become alarmed if certain features of this trade became generally known. According to Dr. Jiirgensen, the principal grounds of complaint are that in the larger towns the bakeries are underground, sometimes in the neighbourhood of places of convenience, and that the bakers take their meals in the workrooms.

As overwork is quite common in this trade, the health of a good many of the men is very bad, for the inhalation of dust and particles of flour flavours the development of tuberculosis, and the considerable variations of temperature produce rheumatism. Numbers of the men also suffer from deformities of the lower extremities, and from want of necessary cleanliness diseases of the skin are very frequent among them. Dr. Jiirgensen said that matters are much better in England, where some progress has been made, mainly through the efforts of the medical profession.

Alcoholism in Children.

Moreau has recorded several cases of alcoholism and dipsomania in children. He says the tendency is in some cases hereditary; often it is the result of some psychical disturbance. Many causes are due to the ignorance of mothers, who quiet their infants, even whild at the breast, with wine or spirits. The pernicious habit of parents taking their little ones into public-houses, and there allowing them to share the drinks, is pointed out. The risk of alcoholism must always be considered in order ing alcohol for children; and where there is a history of alcoholism in a child's antecedents it is best to avoid it altogether. Dipsomania, generally hereditary, occurs both in boys and in girls, in the latter especially about the time of the first menstruation. Delirium tremens has been seen at five years old; and cirrhosis of the liver, with definite history of abuse of alcohol, at three and a half years. Children who have suffered from the effects of alcohol are especially liable to epilepsy, hysteria, moral insanity, &c. The prognosis in such cases is bad, the tendency to excess generally persisting.

Medical Education.

Professor Roswell Park, in his address on medical education, said, from a retrospective view, what had hindered the progress of medical education in time past, and that which being removed had permitted the rapid strides of the last few decades, was the influence of the Church. The subjects against which its authority had been most obstinately wielded were those of anatomy and surgery. Learning in the Middle Ages was confined to the monasteries, and the monks were taught that to shed blood was without their pale, and it was considered impious to mutilate a form which was made in the Divine image. During the fifteenth and sixteenth centuries, although public lectures on anatomy were held, the professor did not do the dissecting; he hired some barber to do it, and himself simply expounded what the barber exposed.

The Treatment of Diabetes.

An Italian physician reports the case of a man who had suffered from diabetes for two years. After a trial of other methods without success, oxygen inhalation was employed, the patient taking an average of forty-five gallons of oxygen daily. The urine began to diminish in a few days, and in less than two months the sugar had entirely disappeared. The patient improved in weight, and in two or three months was pronounced entirely cured.

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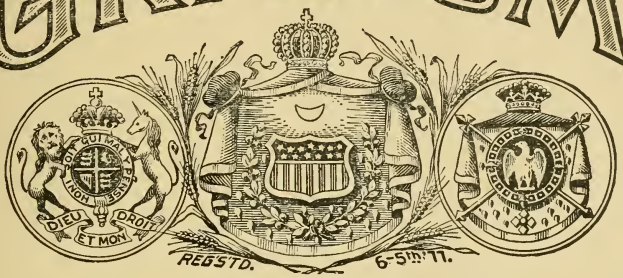

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Laparotomy [and] Intestinal Suture for Perforating Ulcer During Typhoid Fever.

Dr. Watson (Boston Medical and Surgical Journal, March 26) describes a patient who was progressing favorably in the seventh week of typhoid, when he was seized with sudden severe pain and great tenderness at a point about midway between the umbilicus and Poupart's ligament on the right side of the abdomen. There was a sharp rise of temperature at the same time, and In the course of a few hours he became critically ill. Twelve hours after the onset of these symptoms, there was slight cyanosis of the face and extremities, the latter were damp and cool; the features were slightly pinched; and he showed the signs of beginning collapse. Pain had diminished.

Operation was performed September 29, 1895. An area of induration, about the size of the palm of the hand, could be felt in the region mentioned as the seat of pain. The abdomen was opened at this point by a small incision. The peritoneum was found to be thickened and a loop of the small intestine was attached to the abdominal wall by recent and delicate adhesions. In the centre of the adherent area there was a perforation of the intestine with a ragged border, and of the size of the end of the thumb. From this feces were oozing. There was a localized, but no general, peritonitis. The adhesions were very delicate, of recent formation, and liable to have been penetrated at any time by the fecal extravasation. The perforated knuckle of the bowel was drawn out of the wound; the edges of the intestinal ulcer were excised until sound tissue was gained, and then sutured together by a continuous Cushing suture, with fine silk. No other ulcers were found, and the bowel was returned, and the abdominal wound was closed.

There was a good deal of shock; but the patient rallied soon and the convalescene was uninterrupted.

An Interesting Case of Chronic Spasms.

Mr. Walter Bernard exhibited (Royal Academy of Medicine, in Ireland, Feb., 28) a tall, stout, well-nourished, healthy man aged twenty-two years, who was one of twins, and had no family history of nervous disease. His parents stated positively that he never had even a slight illness, with the exception of measles and whooping-cough, from which he made good recoveries. Eight years ago, when writing at school, a slight jerky movement was observed about his right shoulder, and it had continued to increase gradually. The muscles of the right shoulder, arm, and forearm are in a constant state of movement, and the flexors of the fingers are also in frequent action quite independent of the will. He wrinkles his brow frequently and is unable to put his right hand to the top of his head, or to feed himself with it; neither can he button his coat, or use a pen with that hand. His shoulder, arm, and hand are at rest only when he is lifting heavy weights, pushing forward a cart. or engaged in manual labour requiring much effort. These movements are worse on Sundays and are increased by rest. When standing he keeps his hand on a chair to steady his arm. His family say the constant movement is present during sleep. The shoulder and arm muscles are remarkably hypertrophied. He walks with his hand a little behind, the arm being stretched out.

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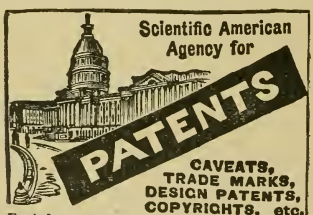
Dr. C. W. Ingraham says, with a rise of temperature of from one-half to one degree at some period of greater or less duration every twenty-four hours may be regarded as the first symptoms of pulmonary tuberculosis; occurring previous to every other symptom, and before the general health of the individnal is influenced to a noticeable degree. The temperature will be most elevated following bodily fatigue. Excluding other morbid conditions that would cause a similhr elevation of temperature, it is safe to diagnose the case as one of pulmonary (or laryngeal) tuberculosis when this temperature has persisted for a period of two weeks, and is associated with loss of weight and vitality, even though there has been no accompanying cough or expectoration, and though physical examination gives negative results.

Guaiacol in Diseases of the Bladder.

Colin an important article on the treatment of cystitis by guaiacol. He finds that the injection of guaiacol carbonate has a very marked influence upon the pain, frequency of micturition, and the state of the urine in all forms of chronic cystitis. He mentions particularly cases in which tuberculous cystitis was greatly benefited by the use of this drug. The form in which he employs it is a 20 per cent. solution in olive oil, 1 to 2 g. of this being injected once or twice daily. He also recomends the addition of iodoform 1 per cent., as increasing the efficacy of the treatment. The author believes that the carbonate is superior as an anæsthetic and antiseptic to guaiacol itself, the only drawback being that is much less soluble; and he believes that in this drug we have a very important addition to our means of theating chronic cystitis.

Dr. Walter Lindley, who is this month added to our list of contributors, was President of the California State Medical Society in 1890, is Professor of Gynecology in the Medical College of the University of Southern California, and is the author of *California of the South*, a work on Southern California, published by D. Appleton & Co., New York.



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The Diagnosis of Intracranial Growths.

Chas. K. Mills (Univ. Med. Mag., March, 1896.) says: The pathological variety and the location of intracranial growths modifies their manifestations, the most distinctive symptoms being given by firm, rapidly growing tumors. General symptioms are often present without indications of either the site or the pathological character, and the diagnosis is made by careful study of all sighs. The absence of focal symptoms does not warrant localization by exclusion.

Any of the physiological subdivisions of the cerebral cortex are liable to occupation by a growth, giving special symptoms according to location.

Mental and psychical change, and sometimes disturbance of equilibrium, point to prefrontal lesion; but when small or occupying the osbital surface few focal symptoms may be present. Convulsions, preceding paralysis, signify Rolandic involvement, motor aphasia or agraphia accompany lesion of Broca's centre. Disorders of muscular and cutaneous sensibility are associated with postero-parietal and limbic involvement, and anesthesia plus local vasomotor and trophic phenomena tell of implication of thc quadrate lobule.

Tumors of the angular region cause word blindness and apraxia; lesions of the cuneus, visual defects; and word deafness, verbal amnesia, and disorders of taste or smell are focal symptoms in tumors of the temporal lobe.

An aggravated type of the general symptoms of encephalic growth is common in tumors of the cerebellum, with frequently, mystagmus, or signs of pressure on neighboring structures. Callosal tumors may give unilateral paralysis, developing into bilateral spasms, mental symptoms, and disordered gait. Contiguous structures are sometimes pressed upon by tumors of the pineal or pituitary bodies. Lesions, immediately subcortical, involving the prejection fibres, cause single symptoms; deeply situated hemiplegia or hemi-anesthesia may be present.

In lesion of the motor-cortex, spasm, chiefly localized and clonic, precedes paralysis, craniel pain and tenderness, and increases cranial temperature are also present. In tumors of the subcortical white matter, paralysis precedes tonic convulsions, and objective symptoms are few.

Multiple tumors, chiefly tubercular, syphilitic, or sarcomatous sometimes occur, and may be symmetrically located on the two sides. Diagnosis is difficult because of the variety of symptoms. Occasionally all the ventricles are involved by sarcomatous growth.

To Remove from the Hands the Odor Acquired in Making a Post-Mortem.

Every physician who has had occasion to make a post-mortem examination is familiar with the peculiar eadaveric odor which clings so tenaciously to the hands. Those also who have treated uterine cancer know the sickening odor of the vaginal discharges and how impossible it is to wash it from the hands. In such cases, the hands should be washed thoroughly with warm water and soap. and then listerine applied full strength. If listerine had no other use than this it would be of great value, but beside this, it is of inestimable value as an antiseptic, either internally or externally.—*Massachusetts Medical Journal.*

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Several attempts have been made to assign a micro-organism as the cause of acute yellow atrophy of the liver. For a considerable period the results were always declared to be negative, but recently Dr. Kanot read a paper stating that in three cases of this disease—two of which proved fatal—he was able to isolate from the blood and liver the bacillus coli communis. Dr. M. H. Vincent also obtained a similar result in a case which he investigated, and was able to isolate the organism not only from the blood of the liver, but also from the bile, all the other viscera, and the nervous system. The patient had died forty-eight hours after the onset of symptoms; the case was a typical one of acute yellow atrophy of the liver, and after death the usual pathological conditions were found. Microscopic examination of the liver demonstrated the presence in large numbers of the bacillus coli oommunis, and pure cultures were obtained without difficulty. The bacillus presented certain characteristics not usually ascribed to it. It was actively mobile. The cultures on gelatine (tube cultures and plate cultures) were neither opaque not confluent, but, on the contrary, were translucent and discrete. The streak yielded by potato cultivations was light yellow in colour, and projected very slightly above the cultivating surface. Lactic acid fermentation could only be obtained in a very small degree and in bouillon; in indol reaction was developed.

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TABLE OF CONTENTS FOR APRIL, 1896.

ORIGINAL COMMUNICATIONS— PAGE.

Retrospect of Disease as Witnessed by a Country Doctor—By J. B. Alexander, M. D., Charlotte, N. C. 457
Scientific Temperance from a Medical Standpoint—By James W. Squires, M. D., Churubusco, Ind. 461
Stricture of the Rectum—By Geo. H. Derrick, M. D., Oakland, Cal. 465
Hypertrophy of the Pharyngeal Tonsil—By S. K. Merrick, M. D., Baltimore, M. D. 467
Professional Courtesy—By J. B. Alexander, M. D., Charlotte, N. C. 469
The Expression of Ideation—By James Weir, Jr., Owensboro, Ky. 470
Some Points in the Treatment of Pneumonia—By J. M. French, M. D., Milford, Mass. 476
About the Diagnosis and Prognosis of Albuminuria in Pregnant Women —By Dr. E. M. Dupaguier, New Orleans 479

EDITORIALS—

Antiseptics in Purulent Conjunctivitis 483
"Heredity" as a Defence to an Action for Breach of Promise 485
Accommodation: Influenced by Genito-Urinary Irritability 487
Professor Roentgen's Discovery in the Service of Surgery 488
Journal of Experimental Medicine 488
Medicine a Debtor to the Poor, ... 489
Harvard Medical School, ... 489
Not in the Text Books 490
Why Most Physicians Die Poor 490
Antitoxin Treatment of Diphtheria 491
Pathology of Empyemia 492
BOOK REVIEWS 493
LITERARY NOTES, ... 495
MISCELLANEOUS 501

TO THE MEDICAL SOCIETY OF NORTH CAROLINA:

Gentlemen:—You are respectfully requested to examine the exhibit of Bartlett, Garvens & Co., Richmond, Va., who will attend the meeting of the Society to be held at Winston, May 12th, with a large assortment of the latest improved patterns of Surgical Instruments and Appliances than ever before exhibited at any meeting. All Instruments exhibited will be for sale and at special low figures.

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W. M. GRAY, M. D., Microscopist to Army Medical Museum.

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J. S. TYREE, Manufacturing Pharmacist, Washington, D. C.

Sir Benjamin Ward Richardson says he has no doubt that, if men and women in general properly understood and steadily obeyed the laws of their being—physical, intellectual and moral—70 per cent. of them would reach the age of 110 years.

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G. & C. Merriam Co., Publishers, Springfield, Mass.

The Charlotte Medical Journal.

Vol. VIII. CHARLOTTE, N. C., MAY, 1896. No. 5.

Contracted Meati, Their Causes, Reflexes and Treatment.

By M. E. Van Meter, M. D., San Francisco.

In presenting this article for the public eye, I am aware that the subject of which it treats, will be considered of little importance, by some. Others will say the subject is well worn; while still others will say I am a *crank* on this particular branch of *orificial surgery*. But all must admit that orificial work has opened up a new and vast field for careful gleaning in scientific research. To the careless observer and indifferent pathologist, the almost innumerable reflexes mean but little, if observed at all; but more frequently they are wholly unobserved or wholly ignored. While to the searcher for pathological truths, those reflexes furnish food for a world of thought; excite the keenest interest, and stimulate to an untiring energy and determination to discover their source.

No doubt the question will be asked, why, and in what way, would a meatus slightly contracted, cause a disturbance, general, or specially localized in some remote part, of sufficient importance to demand the attention of the physicians and surgeons who are looking for greater conquests, and deem it beneath their professional dignity to take note of the, to them, small things in the armament of the enemy. They have yet to learn that it is the private, and not the General, who does the killing; that it is the repeating rifle and not the cannon that creates the saddest havoc on the field of battle. I will try to answer such queries, before finishing this paper, by giving the clinical histories of a few of the many cases that have fallen under my own observation.

Anatomy—All who know their anatomy, know that the meatus is the most constricted part of the urethra. But so far as I know, there is no established ratio in the sizes of the meatus and the *fossa navicularis*. We also know that the meatus is not only the most constricted portion of the urethra, but it is also the part that is most sensible to pain, and most sensitive to the touch; it being at the meatus and adjacent neighborhood that the irritation is produced which, by a reflex action, causes the ejaculation of semen, during coition.

Since there is no standard gauge as to the relative sizes of the meatus and the fossa, back of it; it may be asked, how are we to know whether or not the meatus is relatively too small, I will answer this question by asking another. How are we to know when the pysiological contraction of the sphincter and becomes pathological, since there is no standard amount of contraction allowable, and no way of knowing just the amount of contractile force exerted, in a given case? My answer to both of these questions would be: (a) good judgement, (b) by observation, and learning therefrom, (c) by a scrutinizing study of the case under treatment.

I will here state that I am having an instrument made for the pur-

pose of measuring the different parts of the anterior urethra, and hope, by measuring a great number which are entirely normal, to be able to find if there is a fixed relation, as to size, existing between the meatus and fossa; and if so, to establish what that relative size is. If this can be done there will never need be any uncertainty in the matter. If it cannot be done we will have to, as I said before, rely upon good judgement; by learning from observation, and a study of each individual case.

Pathology—The existing local pathological changes in these cases are, as a rule, of minor importance when compared with their pathological reflexes. By ocular inspection we will, perhaps, be struck by the very small size of the meatus as compared to the size of the penis, and the apparent size of the rest of the urethra. As a rule there is more or less puckering of the parts. The diminution of the opening usually takes place from below, where there will be a cicitricial appearance, and with a pocket formed just within the meatus.

Causes—I think of five causes, which I will name in the order of frequency and importance, viz: Gonorrhœa, the use of strong or caustic medicines, congenital malformation, some growth or ulcer, either benign or malignant, or some traumatism. I shall consider only the first three.

Gonorrhœa—This will be found to be the predominating cause; and in nearly all cases where there has been repeated attacks of gonorrhœa, or where we have a long drawn out attack, either from neglect or pernicious treatment, we find that there is more or less narrowing of the meatus. This is especially true in chronic cases, usually denominated, *gleet.*

Strong and Caustic Medicines—These will prove to be the next most prolific cause for this abnormality; and the meatus is doubly exposed to their influences, for while the rest of the urethral tract can and does quickly eject any irritating substance, it must all pass through the meatus, and the last drop lingers longest just within the door. Anything, whether disease or medicines, that cause the destruction, or even a violent inflammation of the lining membrane and subjacent tissues, will cause structural narrowing of this already narrow orifice.

Congenital Deformity.—This is not an infrequent cause for an unusually small meatus, and whose relative size is entirely out of proportion to the rest of the urethra. Why this is so, can only be answered theoretically, basing that theory upon the whys and wherefores of other deformities. But that this condition does exist in a certain proportion of the cases, is an indisputable fact, and will be doubted only by those who are blind or do not recognize what they see.

Reflexes.—In considering the reflexes of this, apparently, trivial wrong, the first question to be answered is, does this minor affair cause all the trouble attributed to it; and if so, how? To the first of these queries I will answer by comparing the condition to an acorn which, though small itself, makes a mighty oak. To the last part of the question I will say that, reflexes are, as a rule, inexplicable. We know that a single drop of water falling upon the back of the neck will not hurt the most delicately constituted child; while the constant dropping would wreck the nervous system of, and drive insane the strongest man; why, we do not know. And that this Minor pathological wrong has wrecked the health of many a strong man, we have had proof sufficient to convince the most skeptical, except those who *will not be convinced*, and who think

that there is no other safe way to town, except to travel the old road, full of roots and ruts, traveled by their grand-fathers.

I will report a few of the many cases that I have treated, which will show some of the reflexes which this class of cases may present.

Case 1.—Willie H., aged 4. The mother stated that the child had always been nervous, restless and excitable, and when a babe he would cry when urinating. As he grew older, he ceased to cry during micturition but would have a chill (rigor) till it seemed, at times, he would have a spasm. Examination showed a mere pin-hole opening, which I slit up to the full size of urethra; relief immediate and complete.

Case 2.—Thomas G., aged 10. The mother had noticed that it had always taken him longer to pass his water than it did any of her other boys, of which she had several, and that it seemed he never completed the act; always dribbling more or less in his clothes, giving them a very unpleasant, urinous odor. He always complained of tired legs and backache. In looking him over for a cause of these symptoms, I observed that the meatus was very small and showed considerable irritation. I introduced a small probe and found the parts exceedingly sensitive; and on withdrawing the probe, it was followed by two or three drops of acrid, decomposing urine. I enlarged the opening to the proper size, and there was a complete cure of all the troubles.

Case 3.—Mr. M., aged 28. Contracted gonorrhœa at the age of 20, since which time he has never been, as he expresses it, a well man; but sometimes better, and at other times worse. He had almost constant backache; and irritable urethra, with a hypersecretion of mucus, and a dribbling of urine. Any violent exercise or over-work will excite a discharge which will usually subside in a few days. On examining the penis; I found the meatus very much contracted and puckered, with a constant moisture around the lips, which I attributed to a few drops of retained urine. I made a free cut down to the level of the floor, and his unpleasant symptoms disappeared as if by magic.

Case 4.—Mr. L., aged 24. Contracted gonorrhœa 18 months ago, was treated with very strong medicine. Has had no gleet, but noticed about one year ago that the urine did not flow as freely as formerly; but micturition is much more frequent, and there is a disagreeable tickling along the urethra. Priapisms and nocturnal emissions are of frequent occurrence. Enlarged the meatus to the full size of urethra, and in one month he reported at my office and said he was a new man.

Case 5.—Mr. C., a banker, aged 42. Contracted Gonorrhœa in July '95. This man, having plenty of means, sought medical advise at once from one of our prominent physicians. After several weeks of treatment he was pronounced cured; but on the slightest provocation the discharge would return. He then went to another prominent gentleman in the profession, and met with like results. He then tried a third doctor, with no better success. He was then disgusted with doctors, and tried various remedies upon himself. Through a mutual friend he then came to me, March 1, '96. At this time he had a free discharge, gleety in character much reduced in flesh, poor appetite, constipated bowels, and with much mental worry. Suspecting the cause of his persistent discharge, and of the failures of my predecessors, I examined him and found the meatus not more than half the size it should be, and told him that it would be necessary to enlarge the opening. To this he demurred in very positive

terms, insisting that he was just as he had always been. I just as positively declined to treat him without operating, and insisting that he was *not* as he had always been. He finally concluded to give me a trial, though he was disgusted with doctors. I incised the meatus freely; gave him a simple wash, and in two weeks he was a well man.

It is known to all who deal much with venereal diseases that a large proportion of cases of gleet come from a stricture at some point of the urethra, but they will have some very persistent cases in which they fail to find the looked for stricture. In such cases I would say, look to the meatus for the cause of your failure to cure the case as speedily as both you and your patient would wish.

TREATMENT.—In no other disease, simple or serious, can the treatment be so plainly and briefly told, as carried out with such positive results. Lay the meatus open to the full size of the normal urethra, and do not be afraid of making it too large, as there is always some narrowing during the healing of the cut. The amount of this narrowing can be controlled by the after treatment, hence should the opening be made a little larger than necessary, it can be allowed to heal again. But there is much greater danger of not making it large enough, than too large. After making the incision, the only after treatment necessaay, is to take a little pledget of cotton, twist it and smear it with vaseline and introduce, also instruct the patient at each urination, to grasp the glans between the thumb and finger, closing the upper part of the meatus, and forcing the urine out through the wound, thus keeping it open while healing.

Some Remarks on Chronic Aural Catarrh.

By WILLIAM MARTIN, M. D., Bristol, Pa.

The object of this paper is not to give a complete study of this almost inexhaustable subject, but simply to lay before the profession an outline of some experience with this chronic affection, referring more particularly to certain forms of treatment. It may be well before considering this part of the subject, however, to look into the etiology and symptoms of the disease, as well as to briefly consider the pathological changes incident to it.

There are two principal forms which I shall alone consider in this article, viz.: the chronic non-suppurative or hypertrophic, and the schlerotic or atrophic. The former is the one more frequently met with in general practice.

Etiology.—All such causative factors as heredity, age, chronic diseases. such as syphilis and scrofula, and climatic conditions are easily recognized as the important ones. With these we have others, as continual exposure to loud noises, over-work, mal-nutrition, and the general mode of living. We find the patient generally to be neuropathic, so that any reflex nervous disturbance must be considered as an important factor in cases,

Pathology.—The morbid changes briefly stated are, in the first form, those of hyperemia and hyperplasia of the mucous membrane and connective tissue, and the changes incident to these conditions. These changes affect the eustachian canals and by extension the whole auditory apparatus. The tympani early shows the effect of this process. The in-

flammatory exudate forms in various manners, either in elongations or fibrils of new tissue, or in circumscribed swellings over the surface of the drum heads. These swellings may be very irregularly situated, and by this unevenness of the mucous membrane, irregularity of tension is caused, thus displacing the tympani. This process continuing, soon causes a progressive contraction, and hardening of the mucous membrane, and an uneven pressure is the result. This pressure continuing will in time produce anemia of the parts and atrophy is the sequence. This condition is the second form under consideration, being only an anvanced stage of the first. Either of these may be localized or general to both ears, the entire involvement being simply due to extension of the process by continuity of surface, perhaps originating outside of the auditory apparatus. The mucous membrane in the atrophic form becomes thin, colorless and dry. As a result of further processes, calcareous salts are deposited. To be brief, ankylosis of the ossicular joints, and general rigidity of the membrane is the result.

Symptoms.—Impairment of hearing is usually the main symptom, and the one determining the patient to consult the physician. There are recognized to be several modifications of impairment, which are peculiar, viz.: Dysacousma, or pain or discomfort from loud noises.

Pseudacousma, or false hearing, in which the patient's voice or out side sounds are altered in pitch and quality.

Autophony, similar to the preceding, in which the patient's voice is altered in quality, and seems to be coming through the tissues of the head, or from some outside source.

Diplacusis—or echo-sound to the voice.

Paracusis Willisii, or where the hearing power is greatest in the midst of noise. This latter is generally considered to give a poor prognosis, as the condition of schlerosis is indicated.

The next symptom in prominence is tinnitus. Some patients consider this the most annoying of all. This varies in amount from the slight ringing of bells to the sound of roaring of waters, or the blowing off of steam.

Vertigo may be placed as third symptom. This is present in a small percentage of cases. When the effect is entire loss of balance, and the patient falls unless supported, it may be due to labyrinthine involvement, or what has been termed Meniere's disease, but is now recognized to be due to middle ear catarrh. Vertigo is not a constant symptom, but fluctuates markedly, and is influenced by any factor increasing intra-cranial circulation, such as stooping or physical exertion. Otalgia and general neuralgias are occasional symptoms, as well as sensations of fulness and discomfort. General constitutional depression is usually an accompaniment, although not necessarily present in all cases.

Treatment.—This question is the one of vital importance, can this disease be cured? Many patients ask this question many times before the answer is ready or satisfactory. It is a well known fact, that scarcely two specialists will agree in every detail in cases of aural catarrh. I will simply, in this paper, give a brief outline of my treatment and results, although will not enumerate individual cases.

It is recognized that a large number of cases can not be benefitted at all, and these generally are those of the schlerotic type. Of the remaining number, the larger per cent. can be benefitted, while, perhaps, the

smaller number can be cured. The explanation is simple. It is because the case is not seen early by the specialist, but at a point where the disease has gained a decided headway and often past the point where remedies are useful. It will be understood that the treatments must vary to suit individual cases, as each one is a law unto itself.

First, we will consider the treatment of the hypertrophic form. The milder cases of this kind have symptoms resulting from mechanical obstruction principally, the eustachian canals being closed by pressure of swollen membrane, so that relief of this condition is almost sure to be followed by abatement of symptoms. My experience is that such applications to the parts as will relieve the inflammation and swelling, will act very beneficially. These are solutions of Iodine and Potass., Iodid. in Glycerin in varying proportions. Some cases are benefitted by occasional swabbings of Argent. Nit. solutions.

This, or similar treatment, together with judicious and frequent politzerization will usually cure the light cases. The more advanced will not yield so readily. Catheterizing the eustachian tubes has at times yielded good results, but, after a time, the improvement ceases and one is at a stand still. In this form more frequent applications of similar remedies, perhaps of greater strength, may be of use, but are not curative. This is the class of cases in which pilocarpine is of use, as my experience proves. There are some favorable reports on this treatment, but as yet the literature is scant.

In all the advancing cases of aural catarrh, where the ordinary treatment has been of no avail, the impairment of hearing and tinnitus continuing, my plan has been to commence with the pilocarpine in solution, in the proportion of gr. 1 to dram. 1 of water, using three minims of this as the initial dose, hypodermically. The arm is as good as any portion of the body for the site of injection, and I have always chosen it. This dose was increased by one minim at each succeeding injection, daily or every second day, according to individual cases. This increase was continued until the full physiological effect was produced and then continued at that point. My experience has been that this effect was produced at eight minims on the average. These injections were continued until at least eighteen or twenty-one were given, and if there was no benefit at this point, it was useless to continue.

The percentages of cases benefitted were varied. The selected series, of course, showed the best results, giving about seventy per cent. benefitted, the remainder being of an uncertain type, that is, the benefit not being permanent. In those cases not selected, or those taken as they come from my case book, the number benefitted is smaller. About twenty-five per cent. show some improvement.

The subjective symptoms from the treatment are disagreeable, and it generally requires from a half to an hour to recover from them. Profuse perspiration is, of course, the more prominent one, and care must be taken relative to going into the open air immediately after the treatment. In all these cases so treated I do not recall one showing any unpleasant after effects.

In the atrophic form of aural catarrh, this method is of no avail, as has been proven by repeated trials. It may be a positive injury if persisted in for a length of time, if the patient is one suffering from any condition lowering vitality.

The only resort in such cases is the operation for removal of the tympani and ossicles, or a modification of this as required. This is now recognized as being beneficial in a large class of cases that previously were beyond the reach of help. My experience with this operation is a limited one, but entirely satisfactory. In all these cases, the general health must not be overlooked, as the key to success often depends upon this.

To sum up briefly, I would say that mild cases of aural catarrh may be benefitted or cured by ordinary methods of treatment. The more advanced types will not be, but in the pilocarpine treatment we have a means of benefitting a fair proportion, while in the still more advanced, or atrophic class, it is of no value.

431 Radcliffe St.

Diphtheria; Diagnosis, Prognosis and Treatment.

By Everett D. Peek, M. D., Boonville, N. C.

There has been so much written and said abont diphtheria that it looks like the ground had been covered dozens of times, but yet it seems to me that there is much that is old to be held fast, and likewise much that is new to be rejected. I mean to say that much that has been lately written and said concerning diphtheria does not apply to the country doctor, or the disease as found in the country. I say this from several reasons.

First. The country physician is not, as a rule, prepared to make a microscopic test of the exudate of diphtheria, therefore, he must depend on the usual signs for his diagnosis.

Second. As to the newer methods of treatment we must confess that we cannot use them in the country on account of their cost and the difficulty of procuring them at the proper time; yet if they should prove to be of real service, as they are now claimed to be by high authority, it is to be hoped that ere long they will be so that they will be in reach of all.

Then let us not neglect those things which have proven to be of the very greatest value, and which cannot be dispensed with, it matters not what new discoveries may prove. Then the highest aim of each and every true physician being the safety of the patient, let us use those remedies which have been proven to be of the greatest value, and then should it be necessary, and we have the opportunity, we may try other things.

During the last two summers I have had the care of quite a large number of cases of diphtheria, with a very low mortality, therefore, I will venture to give some of my experience. I do not intend to even try to offer anything new or unheard of, but merely wish to give emphasis to some facts which are old, yet are being neglected I fear. I wish to say that my diagnosis was made in every case by the usual signs, no microscopic tests being used; therefore some may say they were not true cases of diphtheria. For the benefit of any who may doubt my diagnosis I will relate a case of not more than average severity; yet I know there are those who will say that nothing is diphtheria unless they have used the microscope and found the specific germ of Klebs. To those I would say, I suppose they never knew a case before the days of the germ theory.

On the 10th day of November, 1895, I was called to see F— A—,

a very bright boy of eight years. He had been having some fever for some three or four days, and complained of pain about his throat. On examining the boy I found pulse of 118, fever of 103, and increased respiration. He seemed very stupid and wanted to sleep most all the time, and did not seem to care for things which had usually been of the very greatest interest to him; tongue coated, glands about the neck were swollen and very sore; albumen in the urine, and on inspecting the throat on the inside there was a well formed membrane covering the whole of both tonsils, soft palate extending to post nares. There was a peculiar ashen complexion which you will see in most cases of true diphtheria. This ashen color, or cachexia, I have never failed to find, and it seems to me to be almost diagnostic of the disease, especially combined with the other symptoms. On the 11th there was no material change, except there was hemorrhage from the nose, followed by a very offensive discharge. To the above there is usually prostration of the gravest kind. The case did not materially change until the seventh day of the disease, when the membrane began to come off and the discharge from the nose ceased. The case progressed well till the 12th day, when the glands of the neck became greatly enlarged, and it looked as if an abscess would certainly follow, but they finally went down and the boy went steadily on to recovery.

Now I do not think that any physician would hesitate to say the above was not a case of diphtheria. Then following these cases there were a number of cases of paralysis, which is another important point. Summing up I would say, a fever varying from 99½ to 103½ or 104, a frequent and weak pulse, some increase in the respiration, enlarged cervical glands, albumin in urine, peculiar ashen hue or cachexia, profound depression, sleepy disposition, hemorrhage from nose, followed by pus, then the characteristic membrane in the throat, followed by various paralysis. I would not hesitate to call these cases diphtheria even if I did not find the special bacillus should I examine for it.

These cases were diagnosed as diphtheria before we knew of a germ. Why can we not do as much now?

As to prognosis I will say that we are to always be guarded. A case may have the very best prospects to-day and to morrow be dead. Use whatever of treatment we may, some are going to die, but withall the great majority will recover with good management.

The nourishment and care of the patient is of the utmost importance in the treatment. Give plenty of boiled milk, beef tea, broth, &c., but do not gorge the child's stomach. See to it that whatever it takes as food is well borne and does not irritate. Keep the child very quiet in a well ventilated room. Do not let them throw themselves from first one side of the bed and then the other. The strictest quietude is urgently demanded. There is no disease where the nurse has more to do with the life of the patient than diphtheria. See to the little things.

As to the medicinal treatment, stimulants are of the first importance. Give them all the brandy you can get them to take from the very first of the disease. Here some may disagree, but I have never in one instance had reason to regret the early use of brandy. It modifies the fever, it antagonises the septic poison in the child's system, it stimulates the flagging powers of life and keeps them going until nature can rid herself of the poison. Don't be afraid to use brandy boldly; you will find it the

very hardest matter to get them under its influence, and when once under will nearly always come out better off. Then comes mur. tr. iron given in very large and often repeated doses, like the brandy, do not be limited in its use, but use it boldly from the beginning—10 gtt. for a child two years old every hour or two, as to the severity of the disease. It restores to the blood that which the disease has destroyed. You must not think that it can't bear so much of these medicines. Give them and see; they are not dangerous. Then comes calomel in small and often repeated doses, one-tenth gr. every hour, and here you will find that they will bear enormous amounts, the system is hard to influence. The calomel is a tonic; it causes all the secretions and excretions to act and thereby hasten the elimination of the poison from the system.

The above named remedies form a "trio" in the disease which will rarely fail to be successful if used in time with judgment and enough of them. Many fail because they do not use enough. You will not succeed if you are afraid the stomach won't bear so much. If the stomach should rebel, give them by the bowel for a few hours and then it will be all right. Quinine, in some cases, is of special importance as a tonic. Likewise many other remedies might do good, but never use others and leave the above out.

The complications are to be met as they arise by appropriate remedies, which will suggest themselves for each special case. Do not let them get up too soon, or grave after results will be sure to come.

As to local treatment, I discard them in every form, for a number of reasons. First, they open up new channels for systemic infection. Second, they cause the child to struggle and thereby predispose to paralysis, and more the disease is of a constitutional nature and it can do but little good to treat the local sore.

Possibly the time may come when other things of greater value may take the place of the treatment here mentioned, but as yet there is nothing better as far as the great majority are concerned.

Lacerated Wound of the Eye-ball.

A Clinical Lecture.

By J. Herbert Claiborne, Jr., M. D.,
Adjunct Professor of Opthalmology in the N. Y. Polyclinic; Instructor in Ophthalmology in the College of Physicians and Surgeons, N. Y.; Assistant Surgeon New Amsterdam Eye and Ear Hospital.

The first case I present to yon this morning is that of an extraordinarily well built young man, who comes to me from a neighboring city on account of an injury to his left eye. Look at the patient, now that the handkerchief—which covered his eye—has been removed, and let us record the facts of the case as they become developed under observation. You see that the left eye is affected, and a man who runs can see that the lids are swollen and red, particularly the upper one. Projecting between the lids there is a pellucid fold of conjunctiva, which is yellowish in color, with an inclination toward red, that extends practically the entire length of the palpebral slit, and protrudes downwards and forwards to an appre-

ciable extent. The lashes are somewhat matted with secretion, and a few tears are running down the cheek.

We will now assist ourselves by raising the upper lid which overhangs the lower one. Immediately an interesting and lamentable picture presents itself. I observe in the cornea a wound lacerated in character which is not so deep as a well nor as wide as a church door, but is deep and wide enough for all that. It commences upward and inward in the sclera, a line or two from the sclero-corneal margin, and extends in a slightly meandering course downward and outward for a little more than half the extent of the cornea. The edges of it are infiltrated with lymph, or pus. I observe that the iris is caught in the wound upward and inward but the extent to which it is bound down is hidden by blood. The pupil is dilated except upward and inward where the iris is caught so that the appearance of the vertical pupil seen in some graminivorous animals, is suggested. The dilatation of the iris permits the lens to be seen. In a condition of health this structure can nŏt be seen since it is perfectly transparent, but in this case it is seen since it is white and swollen. It protrudes into the anterior chamber and is attached in a measure to the lips of the wound. In a word, the lens is entirely cataractous. The cornea in the neighborhood of the wound is slightly opaque, and the sclera is red and swollen. More properly speaking the conjunctiva covering the sclera is red and swollen, so that there is more or less of a wall around the cornea, and it appears to be set, as it were in a well. This is called chemosis and it is due to serous injection of the subconjunctival tissue. The pellucid fold which projects between the lids is a continuation of this chemosis.

We proceed now to the history of the case. The patient is a mechanic. who works in a watch factory. While sriking upward with a hammer upon a nut that was tightly caught upon a bar, a piece of iron flew off the nut and struck him in the left eye. This injury then was probably produced by a piece of ragged iron, and this probability is likewise consistent with the character of the wound.

An injury of this discription naturally produces great demoralization in the patient, and it cannot be said that the patient is without pain, but it is a fact and a curious one, that he has but little pain, and indeed so little annoyance that he has slept well ever since the accident happened; and that was three days ago.

I have observed this fact in all cases of severe lacerated or incised wounds of the globe. A corneal scratch or abrasion is far more painful than a penetrating wound of the cornea. You would expect photophobia to be present, but you see it is not. He cannot raise his left lid it is true, but that is owing to its weight; and his right eye, as you see, looks bravely at us.

Among the interesting points in this case not the least is the question of the infection of the interior of the eye with pyogenic germs. The yellow material which I detect lying along the edge of the wound and in the anterior chamber may be lymph or pus, or a mixture of both. Three days you remember have elapsed since the injury. Within this time it is quite possible for suppuration to occur. The severe signs of inflammation, such as the swollen lids and the chemosis suggest the great probability of commencing panophthalmitis, that is to say, inflammation of all the ocular structures. Upon this point turns the matter of prognosis.

Before discussing that, however, let us consider the question as to whether the foreign body is still within the eye.

I asked this man if any one looked for the piece of steel. He said they did not; he had not thought of that. This would be a matter of great moment in the beginning, and would have great weight in assisting the surgeon to form an opinion as to the treatment of the case and the final outcome of it. However simple all this may seem, it rarely occurs to an injured person or those with him, to look for the foreign body in such cases.

It is obvious to you that if the piece of steel had been found, and it had been shown beyond a question to be the piece that had done the injury, the opinion that it was no longer in the eye would have to be accepted. If no search was made for it the man was necessarily in doubt as to its whereabouts.

The inflammation following the injury of an eye, when the offending foreign body remains within it, is especially severe, and from the clinical picture presented here, I should be inclined to believe the foreign body to be still within the eye.

When the inflammation has gone to the extent to which this one has gone, it is a matter of little importance as to whether the steel is or is not within the eye. It is certain that a panophthalmitis is present. It may not have gone to the extent of suppuration yet, but I feel sure that it is bordering on tne verge of doing so. The utility of the eye is gone, there is no vision in it, it is unsightly, the cornea is lacerated, the lens cataractous, the iris involved in the wound, and the vitreous humor beyond a question is involved. It is also a menace to the other eye, for while this man sleeps in fancied security, the other eye may become infected, so that his last estate might be worse than his first. He comes to me for a prognosis and I tell him that his eye will never be of any further service to him, and that it is an hourly menace to his good eye. He wishes my opinion as to the best treatment and I tell him I consider it imperative to take the eye out, whether the steel be in it or not. This is an unpleasant thing to say and doubtless more unpleasant for him to hear, but it is my honest opinion and I give it to him. This opinion has already been given him by the surgeon who sent him to me, but he desired to have it established out of the mouths of two or three witnesses.

If he had presented himself for treatment immediately after the injury, and I could have reached the place of the injury quickly, I should have gone there and endeavored to find the foreign body. If I had not found it I should have been quite convinced that it was in the interior of the eye on account of the depth to which the injury had gone. Possibly also it might have been detected by the use of atropine and the ophthalmoscope. A foreign body that goes far enough to plough up the lens is apt to be within the eye. If I had decided that it was within the eye, I should have suggested the removal of it by the electro-magnet, and this operation would have been done as nearly as possible immediately. I would have made an incision through the sclera into the vitreous humour with a cataract knife, probably between the inferior and internal recti muscles, and thrust in an electro-magnet which was strongly charged. In many cases the foreign material if it be magnetic will bound to the electro-magnet in obedience to the laws of electricity and will remain attached to it so that it can be easily extracted. This is a very pleasing and grateful operation to

patient and surgeon when it is successful, and few things amuse me more than to see the smile of complacency and conscious cleverness that plays over the face of the surgeon when he withdraws the magnet with the for eign body clinging to it. It is obvious that it is not his cleverness, but the laws of nature that have achieved the result.

I desire to repeat and emphasize this, that if this operation is to be done at all, it must be done as soon after the injury as possible ; when so much as plastic inflammation has been set up, it is of no avail to save the eye although it may remove the foreign body.

Electro-magnets alone are efficient. An ordinary magnet will not have sufficient power to dislodge and carry with it any piece of steel that is not very small. Surgeons, as a rule, do not like to handle such cases as this. Law-suits frequently follow as an aftermath to an opinion or operation. I suggest you give your opinion in the presence of witnesses for both surgeon and patient, and to state your opinion in unequivocal terms.*

From the study of this case several valuable deductions may be drawn.

1. Penetrating wounds of the globe are always serious.

2. If produced by a detached foreign body this should be looked for outside the eye.

3. The interior of the eye should be examined if possible.

4. If the case is seen immediately after the injury and the foreign body cannot be found outside the eye, the electro-magnet should be employed, provided the foreign body is electro magnetic.

5. The electro-magnet should be employed as soon after the injury as possible.

6. Many eyes can be saved as sightly, if not useful organs, if the electro-magnet is properly used.

7. If panophthalmitis, even of the plastic variety, sets in, the operation of enucleation is indicated.

8. The operation of enucleation is indicated in the large majority of cases.

A Few Notes on Organotheraphy with Special Reference to the usefulness of Thyroid Extract in the Treatment of Different Diseases.

By H. H. Vinke, M. D., St. Charles, Mo.

The employment of animal extracts in the treatment of diseases is a new departure in medicine. The notion that the ingestion of the testicles of lower animals will restore or intensify the passions of youth; that the heart and other thoracic and abdominal organs obtained from subhuman races will cure organic lesions of those organs in man; that cerebine will conveniently supply a not inconsiderable demand for brains in man, is old, very old but scarcely reasonable and probably supported today only by designing charlatans.

The belief, however, that diseases arising from a lack of the normal secretion of a certain gland, may at times be treated with benefit by ad-

*This eye was enucleated two days later by Dr. C. S. Rodman, of Waterbury, Conn., and a ragged piece of steel, one-fourth of an inch long and one-eighth of an inch wide was found embedded in the retina.

ministering the secretion of that gland from lower animals is new, and forms the basis of modern organotheraphy. At a superficial glance the resemblance between these two propositions may appear to be a striking one, but in reality the difference is wide and unmistakable. For the former, an inheritance from the barbarians, is altogether imaginary without foundation, whereas the latter is a scientific truth and admits of actual demonstration.

At any rate this is true of many of the ductless glands, Of the function of these glands little or nothing was known up to within the past six years, but since then careful research has developed the fact that they are of the greatest importance to the animal economy, that, either by manufacturing substances which are essential to nutrition, or by neutralizing and rendering insert poisonous substances in the blood, they insure and maintain the normal and healthy development and growth of the organism. Probably most attention has been given to the thyroid body. In experimenting on lower animals it was found that after ablation of the thyroid body, there is an arrest of growth, the skin undergoes fatty degeneration, the animal becomes dull and shows little inclination to move about. By grafting a healthy thyroid gland into thyroidectomized animals, or by feeding these animals with the juice of healthy thyroids; there is at once apparent a more or less rapid return to the normal condition. After excision of the thyroid gland in man for diseases, similar disturbances appear, and these symptoms were recognized by Ord as being exactly like those of myxœdema and cretinism.

The belief that all these affections, surgical myxœdema, acquired myxœdema and congenital myxœdema or cretinism depend upon the same cause, namely an absence of thyroid secretion, was proven to be correct by the fact that the administration of the thyroid juice would effect in the great majority of cases a rapid cure. Here then it would seem that the rationale of the organotheraphy is beautifully demonstrated. In the first place, the function of the gland is demonstrated, then it is shown how disastrous to the economy are all diseases and operations on the gland that result in the annihilation of its function and how the resulting characteristic symptoms may be effectively treated and return to the normal state may be effected by administering the juice of the gland obtained from lower animals. Inasmuch as the thyroid gland plays such an important role in the normal development and growth of the body and its proper nutrition, it is but natural that in the young developing into maturity it should be of the greatest importance; then, too, if it should be proven that many diseases resulting from faulty nutrition are due to a lack or absence of thyroid secretion, thyroid feeding would admit of extensive application in the treatment of disease. As has been stated, in myxœdema thyroid extract has been found to act as a specific, it will probably act equally well in less extreme cases; in cases where the development, physical and mental, is slow and tardy, in children who begin to walk and talk later than ordinary children, whose head is out of proportion to the body and in whom the anterior fontanella persists. In obesity it usually effects a considerable loss of weight, and it has been found to relieve the distressing symptoms of fatty degeneration of the heart. In simple parenchymatous enlargement of the thyroid body, or goitre, which is believed to result from effort on the part of the gland to supply an extraordinary need of thyroid secretion, thyroid extract has been found to act satisfactory,

especially in children. Recently it has been recommended in diflerent diseases of the brain, skin and osseous system, resulting from faulty nutrition.

Thyroid extract, equivalent to 5 20 grs. of the fresh glands, according to age, may be safely given 3 times a day. It is important that a re liable preparation be obtained. Bad symptoms and thyroidism are only observed when the dose is excessive, or when an impure preparation is administered. It is most convenient to give it by the mouth, and as the gastric juice does not affect or impair it, it is as effective as if administered subcutaneously.

We are indebted for what we know of the function of the thyroid gland, the proper treatment of diseases arising from an arrest of function of that organ especially to Schiff, Horsley, Murray and Brown-Sequard. Whether the active principle of the gland is a proteid or organic iodine, thyroiodine as is claimed by Saumann, remains yet to be definitely decided. The extraordinary results obtained by thyroid feeding has stimulated careful research and inquiry into the function of the other ductless glands, and the internal secretion of glands having excretory ducts, in order to determine whether diseases arising from arrest of function of those glands can be treated as successfully as those of the thyroid body. The suprarenal capsules and the pituitary body particularly discribed by Addison in 1855, and characterized by bronzing of the skin, marked asthenia and serious disturbances of digestion, is believed to be due to structural disorganization and arrest of function of the adrenals, and experiments by Oliver, Schæfer and Stockton, in this country, would seem to show that fresh adrenals of sheep are of decided benefit in this rare affection.

Akromelagy, first described by Marie in 1886, and characterized by a broad face, large protruding jaw, swollen lips and tongue, and enormously enlarged feet and hands, is believed to be a disease of the pituitary body, and Staar and Eshner, in this country, in the treatment of this rare disease, have obtained satisfactory results from an extract of the pituitary bodies from lower animals. But of all the extracts the diphtheria antitoxin and the tetanus antitoxin are undoubtedly the most important. It is to be regretted that there number is so limited and that recent investigation scarcely justify the hope of a more general applicability of the antitoxines. Reports indicate that the tetanus antitoxin is undoubtedly the most successful remedy we possess for this fatal malady, but owing to the comparatively rare occurrence of this disease, is, of course, not so important as the diphtheria antitoxin. Of the latter it may truly be said, that its introduction by Behring marks an epoch in medicine. There are probably now few physicians who have not witnessed the marvelous results obtained by this wonderful remedy even in cases that appeared hopeless and moribund, and according to Behring over 40,000 children in Germany alone were saved during the past year by the diphtheria antitoxin.

In the above a few of the results of biological experiments have been related, and it will readily be seen how important and beneficient they have been to mankind. In fact, medical progress would be impossible without these experiments. As soon as this is better understood, there is every reason to believe that sensible antivivisectionists will unhesita-

tingly sacrifice a sentimental interest in the subhuman races for a more tender love for the human race.

Lupus Vulgaris.

By Chas. G. Geiger, M. D., St. Joseph, Mo., Professor of Dermatology, Syphilology Minor and Clinical Surgery, Ensworth Hospital and College.

Of particular interest to the dermatologist, Lupus Vulgaris, is a chronic new cell growth of the skin and adjacent mucous membrane, depending upon infection with bacillus tuberculosis. It is characterized by tawny patches varying in size and shape the eruptions of which consist of papules and nodules, terminating, as a rule, in ulceration, followed by cicatrices and atrophy of the skin oftentimes causing deformity. The formation of brownish red papules, about the size of a millet seed, deeply embedded in the skin, always attends the development of the disease. The eruption fades on pressure, yet does not wholly disappear; these primary efflorescence being continuously present during the existence of the disease.

Increasing slowly, it requires months, and often years, before the disease produces any visible change in the affected parts; nevertheless the papules enlarge and coalescing at times form nodules or tubercles (*lupus tumnidus*). The eruptions remain at this height for a month or more, when retrogression begins. Fatty degeneration may now take place, followed by absorption and desquamation (Lupus exfoliation), leaving a small depression resembling cicatrix; though more frequently do we find a superficial destruction or ulceration of the part (Lupus exulcerans).

The ulcers of Lupus are generally round, with flabby borders and red granulating bases which easily bleed. At times the ulcer penetrates the deeper structure of the part affected, when, if it be on the nose, destroys the cartilagenous portion, yet rarely affects the bones, a point well to be remembered in the differential diagnosis of Lupus and Syphilis. As in other skin diseases the forms of eruption in Lupus differ, as Lupus Seminatus, Lupus Serpiginosus, etc.

Localization modifies the course and symptoms of development. The face being the most frequently affected, the nose and cheeks are the parts first attacked, and whenever the disease penetrates the cartilage of the nose the complete destruction of the cartilagenous portion may result. Second in frequency of attack are the hands and feet, and whenever the extremities severely suffer, deformity ensues.

In the differential diagnosis of Syphilis and Lupus Vulgaris it is well to consider, particularly, the history of the case and the form and depth of the ulcer.

The following are some of the chief data of difference, viz.: In syphilis the ulcer remains distinct and its border is sharply defined, while in Lupus Vulgaris a number of ulcers are apt to be confluent and their borders wanting in distinctness. The secretion of a syphilitic ulcer is usually copious and offensive to the smell, while that of Lupus Vulgaris is scanty and non-odorous. The course of disease in syphilis is rapid and the remaining scars are small considering the amount of tissue destroyed; that of Lupus Vulgaris is very slow and the scars are very large, even to

a deformation of parts affected. Then again, Lupus Vulgaris may be confounded with Epithelioma, Lupus Erythematosus, Acne Rosacea and Tuberculosis of the skin.

Of late years much has been written concerning the relation of tuberculosis of the skin, scrofulosis and lupus. Leloir regards them as identical and due to the same virus, while others claim that Lupus is the result of syphilitic parentage, which may extend through several generations. I believe that the latter theory is the true one, since we find syphilis a much more prevalent disease in Europe than in this country, and upon the statement of Kaposi' it is claimed that sixty-six per cent. of all skin diseases in Austria is Lupus Vulgaris, with tuberculosis almost as common. I was particularly impressed with this fact while in the General Hospital at Vienna, where sixty per cent. of all bodies posted were in some way or other afflicted with tuberculosis, and out of the post mortems, which averaged twelve per day, there were not more than two or three that did not have some tubercular lesion.

While the fact stands patent that parents suffering with tertiary syphilis do not bring forth syphilitic children, yet some future generation will experience, as a result of that disease, Scrofula Tuberculosis, Lupus, etc. Kaposi himself believes Syphilitic Scrofula and Tuberculosis to be the causes of Lupus.

The prognosis depends on the size and number of the Lupus foci at the inception of the disease.

No internal remedies will cause resolution of existing Lupus or prevent a relapse. Both internal and external remedies are required because of the obstinacy of the disease. Hygienic treatment is of great importance and tonics, such as quinine, iron, codliver oil, arsenic, and, in some cases, iodide of potassium and phosphorus are highly recommended. Always give the internal remedies a fair trial before resorting to external treatment. External remedies are of a mechanical nature or comprise various costics.

In the early stages of the eruption the use of stimulating applications are recommended to cause absorption, while in later stages caustics, such as galvanic and paqueline cautery are necessary. Large proliferations may be removed with a loop. The mechanical method (curetting) and paqueline cautery is favored by Kaposi, while Neuman uses argentum nitrus in concentrated solution, and in stick is nsed only when the skin is broken, using also the *curette* quite freely. Very highly recommended by many physicians are the mechanical treatments by puncturing and scarification, particularly in some cases.

Van Harlingen recommends ethylate of sodium as an application less painful than other caustics. My belief is, notwithstanding other modes of treatment that might have proven successful under certain conditions, that the curette or Paqueline cautery is the most satisfactory method of treatment, and when the mechanical method is used I would recommend that iodoform be used as a powder, and the parts dressed antiseptically.

717 Felix St., (Hughes' Building.)

A prescription for a hair tonic for an Egyptian queen, dated 4,000 B. C., has recently been deciphered. It directs that dogs' paws and asses' hoofs be boiled with dates and oil—about as sensible as some of our modern prescriptions.

The Surgical Treatment of Uterine Fibroids.

By R. E. Haughton, A. B., M. D., Richmond, Ind.
Late Professor of Clinical and Operative Surgery, and Surg. Pathology, Central Medical College, Indianapolis, Ind.

1. It is a question of diagnosis.
2. The tumor must be differentiated from other tumors.
3d. They must be located.
a. Are they intra-uterine (Pediculated).
b. Are they interstitial (In the Walls).
c. Are they *external* or (Sub-Peritoneal).
4. The methods of removal.

The discussion of this subject came before the Gynecological Section of the American Medical Association, at its San Francisco sessions, in which I was invited to lead in the discussion, which was preceded by three papers read before that Section. It was quite ably and fully discussed, and yet I do not think covered all the ground. Suffice it to say, here briefly, that there are three methods of removal of pelvic and uterine tumors, and as the choice and prestige of great names in the surgical field have guided, so men have become more self-reliant, and with the experiences, born of necessity, other methods and operations than the ones which were original have been introduced and other conclusions have been reached.

In this brief discussion I do not propose any historical review of the subject, but endeavor to confine myself to the surgical discussion of methods which are before the profession, and from the stand point of experience, as found in dealing with them. Until recently the question had not been settled as to the possibility of degeneration of these tumors, and this raises the most important question of diferential diagnosis. Some authorities have asserted that fibroids never degenerate, and some researches would tend to prove this, and the weight of authority, with Virchow, the celebrated cellular pathologist, and Senn on tumors included indicates that both sarcomatous and carcimomatous degeneration do take place, and the testimony of operators, in the discussion, was to the same point. Having then pointed to this important fact, before proceeding we come to the question of

Surgical Methods.

When, therefore, it has been determined to remove a pelvic, or abdominal tumor, this question of differential diagnosis should be definitely settled; and as it sometimes is very difficult to determine the condition of a tumor before removal, also it is important to remove it before the tumor has made such progress in degeneration* as to involve other structures, and being thus early removed, prevent some of the disasters which have occurred along this line by waiting too long.

1st. Then we come to the abdominal method, or laparotomy, which sometimes involves or necessitates the removal of the uterus, along with the tumor, and dealing with the stump or pedicle, by one of two methods, viz.: Intra or Extra Peritoneal. The dangers of removal of the tumor, including the uterus, has been fully recognized and the mortality of 19.67 per cent. in comparison with others, and perhaps, better methods caused

*Virchow and Senn.

men to canvass more fully the means by which success might be reached and mortality reduced. Lately, within a year or two, has this subject been so closely canvassed and other methods tried, so that results are changing, and mortality per cent. is being improved. But pursuing the tenor of our way, we examine the abdominal method. 1st. Then the question of incision turns upon the probable size of the tumor and its relations to the uterus, especially if it involves the removal of the latter. While this has been and is being done it becomes a question involving many very grave questions. When the uterus is to be removed we may resort to several methods which are described and before the profession. I mention in the order when proceeding to a laparotomy, which is said by one writer "To be the daughter of ovariotomy."

Then we have first the supra vaginal method and involves the idea of total removal of uterus, including only, in the present discussion, such pelvic or abdominal tumors as may necessitate so important a removal. The supra vaginal method has regard to division of the neck of the uterus sufficiently high as not to interfere with the vagina. The supra-vaginal method is resorted to by the vaginal route of removal and involves two ideas, or each one singly, viz.:

Anterior colpo hysterectomy, or posterior colpo hysterectomy, by which is meant an opening through the anterior or posterior Douglass cul-de-sac, or if need be encircling the entire cervix closely, and after, care for all vessels and peritoneum in the shape of broad ligaments, and then by a strong retraction (ante-version or retro-version) of the uterus and downwards by volselli remove the organ with its tumor. Of course this operation implies a tumor small enough to be removed by the pelvic route, as I have happened to see cases where such an operation was impossible. In the supra-vaginal section the tumor must be above or beyond the neck or in some development of the wall of the uterus, in which we say interstitial or intra-peritoneal, and this sometimes raises the question of the abdominal method of removal.

Coming back to the intra-pelvic methods, one writer prefers one method and another some other, till we have had all methods described except one, and that is removal of the broad ligaments by anterior and posterior dissection laterally from a middle line anteriorly and posteriorly on the fundus of the uterus. This is mentioned by one writer, Dr. Tuttle of Cambridge, Mass., and yet he does not make his point only in the abdominal operation by dissection of peritoneum. Why not do this same thing sub-peritoneally by the vaginal route, and I call this method the enucleation of the uterus from its peritoneal investments through the vaginal route (a uterine ablation). I believe we must come to the method which, if it must have ablation of uterus we should have ablation of all the adnexa, to make a complete cure, as our literature is full of failures to cure by partial ablation of uterus and accessary organs by repairs. Let us have a finished work which restores to health (if not to happiness), and while I believe the abdominal route, with supra-vaginal section, is the most successful so far, yet I am also impelled to believe that, except for large tumors inaccessible by the vaginal route, it will be the most successful. I would not prejudge the issue, but many things impel me in this direction, after witnessing and operating upon so many cases.

It may be said enucleation of the uterus cannot be done by the anterior supra-vaginal plan, or combining the two methods and enucleating

the neck entirely, the uterus can be separated by an upward dissection, or enucleation as well as a downward method. Thus leaving the uterine vessels even without a ligation. If this be done then there can be a careful closure of the central peritoneal space, leaving nothing except surfaces nicely closed, adapted requiring drainage, per vaginam. I would remove ovaries, tubes, and thus, with the womb, *sweep the deck*, so that the storms of sexual life, along with the womb are removed forever, and there is no honest surgeon who has to do and carefully interpreted these cases, but knows when the storms are coming.

Indeed, the French surgeons are coming to this idea of the vaginal method, when its technique shall have been perfected. There are advantages and disadvantages embraced by the two methods, which we are not yet fully prepared to determine.

In the vaginal operation the vessels can be tied with proper care, and the operation can be made practically bloodless, if the uterine vessels are left within their relations by the enucleation. The limits of the operation are determined as to a choice, when some large tumor cannot be thus removed. Large uterine tumors, having extensive adhesions, can be removed by the vaginal method, which might present almost impossible difficulties, or fail to be done by the other methods. It makes the surgeon complete, and sustain, a more complete asepsis, including drainage, than any other method.

Terms Necessary to be Understood.

The term laparotomy, or laparo-hysterectomy, means a removal of the uterus in this discussion of tumors. "Uterine ablation," a complete removal, and yet the term does not mean so much (as if defined strictly.) "It means any cutting operation on the womb."

b, Sub-operation. Supra-vaginal operation of cervix is here abdominal section.

c. Colpo-hysterectomy—which may be infra or supra-vaginal—complete removal by the vaginal route, by choice.

d. Supra-vaginal amputation of cervix, with abdominal section of cervix, or

e. Intra-vaginal section of cervix by selection, and which may be by the vaginal route or the abdominal route (added).

Authors and writers are resorting to all these methods, and each supposes he has "crossed the Rubicon." The term hysterectomy is not exactly a modern one, and we trace it legitimately to Langenbeck, whose case dted, and post mortem proved that he had removed a large portion of the womb. The type of this operation was presented by Prof. Freund of Breslau, and he removed the uterus in several cases of carcinoma of the organ.

The fatality of the operation rendered it futile, while Zerney of Heidelberg, in 1878, revived what is known as the Sautsr operation some 79 or 75 years ago, viz.: the infra-vaginal operation. He was followed by Bilroth and Schrœder, who have given to the profession the value of their experience, and the latter discusses methods in his Diseases of Women.

Supra-vaginal section of cervix, which here means abdominal section, may be performed for removal of myomata or fibro-myomata and

Note.—I am aware that some authorities say "that total extirpation, by the abdominal route, is one of excessive mortality, and doubtful benefit." But this statement has reference to cancer.

compound fibro-cystic tumors, or in some rare cases in which sarcoma or carcinoma is plainly confined to the body of the uterus, The Porro operation is a modification of this, and with the introduction of the elastic ligature, by Kleberg of Odessa, to control bleeding from the stump, introduced an era in this method of procedure. There have been pioneers all along this line of progress, and we still find in the great field of gynecological endeavor, that it is probably the faint light of the brighter day of surgical achievement just beginning to dawn upon us.

If we are to consider that the various methods of procedure, elastic ligature, ligation of vessels, (Martin,) section of the utero vaginal junction, methods of drainage, antiseptic ligatures, methods of dressing, with the acute study to perfect the technique, securing mortality largely decreased, are the results of progress, what shall the future record of this question be. In the supra-vaginal method the abdomen is opened as in any other laparotomy, and the uterus and its tumor exposed, it is lifted up into the wound, and the elastic ligature is passed as low as possible, with its ends coming out from the lower edge of incision of broad ligaments, and each broad ligament is tied with strong silk ligatures, one near the uterus, and a second one-half or three quarters of an inch from the first. The uterine arteries are tied close to the body of the uterus and upon either side; and sepsrated from its attachments and ligaments by section outside of ligatures placed upon them. Then lifting up the body and neck into the abdominal section, a section of cervix above the elastic ligature by knife and scissors is effected, and removal of uterus and tumor is done. Sutures of all small bleeding surfaces are arrested by adjustment of peritoneal edges by proper section, and as I hold while removing uterus, remove ovaries, tubes, and all other tissues diseased if any, especially the *adnexa.*

Treatment of Pedicle—*Whether Intra-Peritoneal or Extra-Peritoneal.*

The latter so far, with the prestige of great names behind it, is the best, so far as the per cent. shows. We shall not stop here to present any facts as to per cents, but to the question of intra or extra-peritoneal management. To my mind there are some grave objections to either, and we choose that which seems to give the best results. I need not travel over the ground of objections, but summarize in favor of the extra-peritoueal method, and simply say as Prof. Pryor ("New York Polyclinic") says, so I must say, "That all pelvic lesions should be treated by vaginal section, and all purely abdominal lesions, which have abdominal development, though they may have had pelvic origin, as tumors, etc., should be treated by "celiotomy." Among these latter class are abscesses of ovary and tubes, cysts of ovary, large fibroids snd large fibro cystic tumors, which are not removable by any other method.

Removal of abdominal tumors by the vaginal route is doubtful unless it was clearly determined they were so readily reached and detached in this direction, viz., vaginal, that there could be no mistake or doubt about it. Hence the surgical methods resolve themselves into those accessible by the natural route, "*per vias naturales*," or by the abdominal method. The progress made in surgical gynecology seems to have made it possible to resolve most of such operations into the least dangerous and more readily effective operations by the vaginal route, except it may be in that class of large fibroid tumors, or cystic fibroma which has grown to such

an enormous size as to prevent any operation except the abdominal, or laparotomy, some of which have come under my care by operation.

Tumors of the cavity of the uterus are sometimes pediculated, sometimes sessile, sometimes interstitial. or may be sub-peritonial. I have seen them of such large size that the uterus had a uniform growth, and seemed as great or greater than a full term pregnancy, and gave rise to periodical hemorrhage, which threatened the life of the patient. It should be remarked here that the intra-peritoneal method of dealing with a stump if, forsooth, any pedicle remains, is clearly an extra peritoneal method, and besides having the best possible drainage, we, now by either method, or a combination of methods, secure the best conditions for recovery. The technique adopted by each surgeon in view of his methods, whether enteric removal, or supra or infra-vaginal division of the cervix, is but an effort to save something to the female economy, only as an apology for removing anything, as I do not conceive, the saving of any portion of the uterus, where an operation becomes imperative, is *sine qua non*, and especially when we remember "that the progress, in surgical gynecology, makes it possible to-day to avoid, for the most part, abdominal section." Hence, accepting this position in the main, we are left to the operation by the vaginal route as filling the necessity for operations, except as before in this paper sufficiently defined.

The Sterilization and Storage of Catgut.

By J. Coplin Stinson, M. D., San Francisco.

So many unsatisfactory results have followed the use of improperly prepared catgut, as evidence by circumscribed or diffuse inflammation and suppuration, that it is highly important the surgeon should obtain the most thoroughly safe and reliable suture and ligature material. Taking the ground that catgut furnishes this ideal, I proceed to describe a method by which I secure its sterilization without impairing its durability or strength. Before taking up the sterilization of catgut, I would suggest that in purchasing the material, two sizes being all that are required, Nos. 25 and 20 American wire gauge, the preferable form is that put up in bowlines* each one yard long and rolled separately in bunches, as sold by Keller, Nassau St., New York. I select the bowlines because they are more easily prepared and more handy to manipulate in operations*. I thus do away with reels which are cumbersome, besides the solutions and heat having free access to each particle of the material thoroughly permeate the tissues of the bowlines; whereas if the gut is on reels the deeper layers are not so completely affected; again, during an operation a sufficient number of bowlines can be removed from the glass storage bottle with a pair of sterile forceps without infecting the rest of the catgut.

The method commended:—

1. Place bowlines in pure ether for one week†.

2. Place bowlines in a glass vessel (sterilized) containing 1 to 4,000 corrossive sublimate in pure ether for one week†.

3. Place catgut in a bottle with screw top (sterilized), pour in absolute

*Bowlines were first used as routine br Robert T. Morris, New York.

†Robert T. Morris' method of sterilization of catgut.

alcohol to more than cover gut. Screw top down tightly and stand bottle in water which reaches nearly to lower edge of screw top. In order not to take a chance of breaking catgut bottle stand it on a folded towel, placed in the bottom of vessel containing the water. Heat water to the boiling point and maintain at that degree of temperature for 15 minutes, at the lapse of which time catgut is ready for use. During the boiling a, very small quantity of the alcohol may evaporate but there is no danger of an explosion even with the top screwed down tightly. Only a comparatively short portion of the surgeon's time is engagtd during the process already described in return for which he has an absolutely sterilized material. After the first step every precaution must be taken to insure surgical asepticism, such as sterilization of all articles used in the process and antiseptic preparation of the hands. The modus operandi is easily explained:

The ether thoroughly removes the fat from the catgut, the bi-chloride dissolved in ether disinfects, increases the durability and does not lessen the strength of the material. As for the alcohol it is well known that it is not a germicide‡. If it contains germs the latter will live but not multiply; boiling the catgut in alcohol removes the traces of bi-chloride and destroys any germ life that may exist in it, thus constituting in the ideal storage fluid. Catgut prepared by the above method is sterile can be kept so for years and what is also of great importasce does not require to be chromicized as it remains about as long in a wound without being absorbed as the chromized material.

326 Kearny St.

Hydrobromate of Hyoscine,

By Walter Lindley, M. D., Los Angeles, California.

February Thirteenth 1896, I had a call from Dr. Reginald K. Smith of Alabama, Assistant Surgeon of the United States Man-of-War, Philadelphia. While Dr. Smith was in my office a messenger came saying that a patient whom I had seen in the morning suffering from delirium tremens had jumped through a window carrying the sash with him and had been captured with difficulty. Dr. Smith said that in the navy they used hydrobromate of hyoscine for that class of cases.

I found the patient a few minutes later in a state of intense agitation, three men being required to keep him in bed, $\frac{1}{60}$ of a grain of hydrobromate of hyoscine administered hypodermically at 4 P. M., had a calmative effect in fifteen minutes. At 6 P. M., he was given $\frac{1}{100}$ of a grain, at 8 P. M., $\frac{1}{800}$ and the same quantity thereafter every four hours. In the language of the nurse's record: "The new medicine worked like a charm, the patient slept like a child." Along with this quieting effect the patient lost all appetite for liquor of any kind.

Two months have now passed and he is attending to his business and has had no return of his desire for drink. Before the attack he had for two years averaged twenty-five drinks a day. He is now taking $\frac{1}{100}$ grain of the hyoscine at 8 o'clock every evening.

After hearing of my experience two other Los Angeles practitioners

‡Sternberg's Bacteriology.

gave it a trial, each on a Keeley-cured back-slider where morphia and whiskey were getting their combined effect. In both instances the results were perfect. From a state of great agitation—in one it amounted to delirium—these two patients became quiet, got abundance of sleep and lost all desire for alcohol and morphia.

I have not come in contact with any more alcoholics since the cases described, but had a patient who had violent cramps about an hour after I curetted her following an abortion. These cramps affected numerous muscles of the body but principally those of the legs. Massage, heat, enemas of hydrate of choral, and ¼ grain of morphia hypodermically were all tried without effect. $\frac{1}{100}$ grain of the hyoscine was now given hypodermically and the patient became quiet in 5 minutes and was soon sleeping.

Shoemaker in his Materia Medica and Therapeutics, 1896 Edition, says: hydrobromate of hyoscine is of great value in recurrent mania and in chronic dementia with agitation and destructiveness. He also tells of a case of great nervous excitement and insomnia where the administration of $\frac{1}{80}$ of a grain was followed by several hours calm slumber, and that there was no ill effect from the drug upon the awakening of the patient. It is also recommended by him to allay the convulsions of cerebro spinal meninigitis and as of value in checking spermatorrhea.

If further experience demonstrates that this drug usually destroys the desire for alcoholic drink it will be given an important place in our therapeutics. It is possible that this is one of the drugs of the formerly popular Keeley cure and that the withdrawal of the drug on the discharge of the patients caused the numerous relapses.

315 West Sixth Street.

A Means of Emptying the Bladder.

By Dr. Edward Anderson, Rockville, Md.

The bladder when partially paralysed from parturition, or any other cause, can always be made to empty itself perfectly by throwing a large amount of very warm water into the bowel, thereby doing away with the necessity of using a catheter, a most important consideration, particularly when the patient lives at a distance from the doctor.

After difficult and protracted labors I have been obliged to use the catheter every day for weeks at a time, which was annoying to the patient and inconvenience to myself. Since using the above recommended plan, I have had no trouble in this direction, the bowel and the bladder emptying themselves at the same time.

To the Members of the Medical Profession:

My two collective reports on Ice-Cold Applications in Acute Pneumonia, already published, gives a record of one hundred and ninety-five cases so treated, with seven deaths, or a mortality rate of 3.58 per cent. Being desirous of making as full a report as possible on this subject, I take the liberty of asking those who have tested this measure to kindly give me the result of their experience. Full credit will be given to each correspondent in the report which I hope to publish. Blanks for the report of cases will be furnished by me on application.

Thomas J. Mays, M. D.,
1829 Spruce St., Philadelphia.

April 29th, 1896.

"The Evil Results of Overstudy in the Young."

The above is the title of a paper by Dr. W. Thornton Parker, of Groseland, Massachusetts, read at the meeting of the American Medical Association, in Atlanta.

The importance of this subject at the present time can not be overestimated.

Dr. Parker calls attention to the present system of education which the wealth and progress of the Republic have developed, in comparison with that of the early days when so many men who afterwards became conspicuous in the history of our country, were obliged to struggle in acquiring a meagre education.

Although the American public school has been the pride and glory of American institutions, there is much to be criticised and lamented in its present management.

The burden of overstudy forced upon the shoulders of our young men is, in many cases far greater than they can bear, although the recent victories of our students in the Olympean Games at Athens, are likely to create a popular idea that our young men are the strongest in the world.

Unfortunately it is not only the young men who suffer from too high pressure of study, but the evil is, if anything, more serious in the case of our girls. They are expected, no matter what their condition, to compete in class with boys of their own age. This idea, which is encouraged by the new woman craze, is a great error; and that she appears to win and graduates with higher honors, gives us little idea of what the struggle has cost her. As a little school girl, she is often irrationally clad, her clothing so made that it presses on the breasts retarding their growth, and on the pelvic organs causing misplacement.

Many students are ignorant in regard to the requirements of health, or if not ignorant are forced to encroach largely upon the time which should be given to rest and sleep. The want of proper rest is one of the most noticeable evils of modern civilization. The nervous system, as well as the brain, suffer severely from this need of sleep; both mind and body are oftentimes permanently injured. Mental exhaustion, irritability, and brain fag are the result, the sleeplesness causing neurasthenia. It is also one of the most frequent causes of heart disease.

In the hurry of student life, meals are too hastily eaten, the quality of the food is apt to be inferior, and indigestion the result.

The overtaxed student immediately suffers from physical as well as mental harm.

These diseases of the nervous system, of the heart, and the digestive apparatus, are the exciting causes of melancholia.

The frequency of suicide among students is appalling, and should alone call for a reform in our educational system. Grave responsibilities rest upon our educators in this matter. In desiring to make a good showing for the large sums of money invested in the institutions of learning, they force upon their pupils burdens far too heavy for most of our children to bear. The manly vigor of the Republic is robbed of its strength for the sake of creating an artificial condition, which does not contain the elements of future national prosperity.

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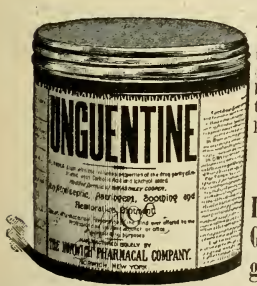

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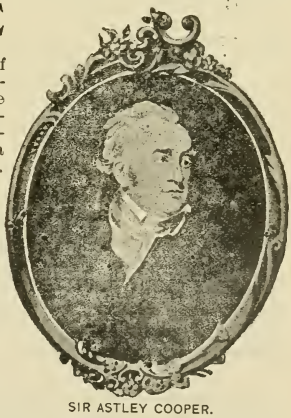

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NOTICE--CAUTION.

The success of Fellow's Syrup of Hypophosphites has tempted certain persons to offer imitations of it for sale. Mr. Fellows, who has examined samples of these, **finds that no two of them are identical,** and that all of them differ from the original in composition, in freedom from acid reaction, in susceptibility to the effects of oxygen when exposed to light or heat, **in the property of retaining the strychnine in solution,** and in the medicinal effects.

As these cheap and inefficient substitutes are frequently dispensed instead of the genuine preparation, physicians are earnestly requested, when prescribing the Syrup, to write "Syr. Hypophos. **Fellows.**"

As a further precaution, it is advisable that the Syrup should be ordered in the original bottles; the distinguishing marks which the bottles (and the wrappers surrounding them) can then be examined, and the genuineness—or otherwise—of the contents thereby proved.

Medical Letters may be addressed to

Mr. FELLOWS, 48 Vesey Street, NEW YORK.

The Charlotte Medical Journal.

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THE IMPORTANCE OF TESTING THE URINE IN ALL CASES.

Organic disease of the kidneys is so often present when least suspected, and manifests itself in such a variety of ways, that it becomes really a duty of the physician to know the condition of the kidneys in every case of importance that comes under his care, whether acute or chronic.

Thus persons suffering from a great variety of symptoms often of the most opposite character pass through the entire course of kidney disease and die without the true cause ever being suspected. It may manifest itself by a tendency to sleep or a tendency to insomnia, by what is termed nervousness, by impairment of some one of the mental faculties, as memory, forgetfulness of names, plans, dates or persons.

In some cases of nephritic disease there is distressing insomnia, and in others a marked tendency to stupors. The number of sudden deaths from nephritic disease is large, but they are reasonably attributed to disease of the heart or apoplexy. It is not unusual for persons to die suddenly on the street, at home, or while occupied in every day vocation, when disease of the kidneys is never suspected. It always gives us, whether positive or negative, valuable information to ascertain the condition of the kidneys in all of our cases. For instance, in a case seen recently by the writer, there was intense nervousness in a female beyond middle life, and insomnia. There was no other general symptom to de note disease except a rather excited tense pulse. The woman was supposed to be suffering alone from neurasthenia, but the urine was fortunately tested, and the test indicated an advanced Bright's disease. She died within a week very suddenly, but the family and physician had the satisfaction of knowing the true cause.

Examine the kidneys in every important case and you will often be rewarded with valuable information. Patients often die from neuphritic disease during the course of typhoid fever, pneumonia, bronchitis, malarial fever, dysentery, diarrhœa, and other acute diseases, without its ever being suspected.

To use a homely expression, we often stumble upon Bright's disease when we least suspect it. In many obscure and difficult cases of anæmia, general prostration, indigestion, dyspepsia, emaciation, decline of strength,

a simple test of the urine will throw a flood of light upon the case, and give us invaluable information.

PROFESSIONAL TRUTH AND HONESTY.

It is befitting, in these days when misleading statistics form a prominent part of a surgeon's stock in trade, when patients' lives are unnecessarily risked in order to add to the number of operations performed, when proper conservatism and a just regard for the true welfare of those intrusted to our care are branded as evidences of timidity and incompetency, to call upon the members of our profession to put things in their true light. Is it not possible for us to be a trifle more honest in our dealings with the profession and with the public. Was "Poor Richard" wrong when he said honesty was the best *policy*? Sir Spencer Wells, many years ago, when he was registrar of one of the London hospitals, found such a discrepancy between the published statistics of abdominal sections and the true results as revealed by a careful investigation, that he did not dare to make use of the facts he had ascertained. Is it not true to-day that statistics are used to prove almost every thing? Do our successful operators give the same prominence to the report of their unsuccessful cases as these are entitled to from the relation which they hold to the successful ones?

It is human nature—but bad human nature—to wait for a lull in our mortality and then report the following series of successes. And what are the results? One, is belittling of the seriousness of operative procedures. The patient is assured that the chances of recovery are nine out of ten, when six might be a liberal number. Men with the least possible amount of surgical experience do not hesitate to attempt operations that their seniors shrink from performing. The surgeon who really considers the best interests of his patients, and on suitable occasions advises non-operative treatment, thereby risks his surgical standing and acquires an unjust reputation for timidity, and lack of knowledge and skill.

The indiscriminate removal of ovaries has already been stopped, the restricted field of some of the more advanced brain operations has been pointed out, a suspicion is propagating itself among the profession that it is not necessary to remove every appendix that is uncovered by abdominal procedures, and there are other evidences that a more honest spirit is arising in the profession. Let the surgeon have the courage to fearlessly pursue the course that his conscience indicates, and be assured that in the long run honesty *is* the best policy.

OPERATION IN APPENDICITIS.

There is no operation now before the profession that occupies so much of its attention as does that of appendicitis. Its diagnosis, held by some to be a matter of the greatest ease, is sometimes obscured in doubt. Usually, the fixed localized pain and accompanying rigidity of the muscles and underlying parts, together with vomiting, and perhaps other symptoms, suddenness of onset, &c., will enable the diagnosis to be made with ease; but disease of a fallopian tube, typhoid fever, cancer of the cæcum, and even affections of more remote organs, as the kidney, gall bladder, etc., may all be mistaken for it. The ease of diagnosis depends

on how closely the case is a typical one, and before operating one should not think it unnecessary to make such a careful examination as will include other affections.

When should one operate? The tendency is to do so as soon as the diagnosis is positively established, and this we believe to be correct. The fatalities occur in the delayed cases. In cases operated on early the operation is apt to be uncomplicated. A smaller incision suffices, the appendix is more readily found, it is more easily isolated and removed, septic infection is less liable to occur, drainage is unnecessary, and the abdominal wound can be so carefully closed as to render unlikely the subsequent occurrence of ventral hernia. The patient is not only cured of his present trouble, but is rendered immune from later attacks. In operating on acute cases the question is to be decided as to whether the condition of the patient is such as to justify a prolonged operation, or whether simple relief is to be given in order to tide him over the crisis. The operation is oftentimes an exceedingly difficult one, and lack of experience is a heavy handicap. In acute cases where pus is present the simple evacuation of the abscess will so relieve the patient that he will rally and so be tided over the critical stage. Later he will be well able to stand a severe tedious operation which, if it had been persisted in at the time of the first one, would have been followed by the death of the patient. It is a great mistake for surgeons to attempt to do ideal operations on emergency cases, the outcome is too apt to be disastrous, particularly if the case is a severe one, and the experience of the operator limited. Should the appendix not be removed a fecal fistula is apt to form, which will almost certainly close after a time, but the patient is liable to a subsequent attack. For this latter reason he should be kept under observation and the appendix removed at the first sign of recurring trouble, or else, the abscess having been opened, he is allowed time for the constitutional disturbance to subside, and then in one, two or three weeks the wound may be reopened and the appendix carefully and leisurely removed.

THE PRACTICAL VALUE OF RONTGEN'S PHOTOGRAPHY.

When the possibility of obtaining outline photographs or skiagraphs through human tissues and other opaque bodies was shown by Rontgen, the question must have suggested itself to others, as it did to me is it of distinct practical value in the practice of surgery? So little was known of it at first that it was with difficulty that one was able to form any trustworthy conclusions. It seemed more of the nature of an interesting phenomenon than a valuable acquisition, so that judgment, in my case, was suspended.

At that time I had the good fortune to see a demonstration of the method at the Philadelphia College of Physicians which, as far as I was concerned, settled the question. A man with a fracture of both bones of his forearm, a couple of inches above the wrist, was the subject. The affected part was placed on a wooden plate holder containing a sensitive plate. Six or eight inches above was a straight Crooke's tube, and through it passed a current from a large six or eight inch spark induction coil, supplied from six storage battery cells. The current was allowed to pass for fifteen or twenty minutes, the plate removed and developed, and in a

few minutes returned. It showed distinctly the exact outline of the broken bones with the deformity present.

This convinced me that while the apparatus necessary was expensive it was very decidedly practical and was an addition to our means of diagnosis that supplied information obtainable in no other way. A straight tube of comparatively small size, made in that city was used. Since then the so-called focus tube has been devised, which still shortens the time of exposure necessary, and successful skiagraphs have been made of the knee, elbow, and arm, and now the trunk is the part that it is sought to conquer. There have been many instances given in the medicad press of the practical applications of the method, and as it is a distinct advance in our methods of diagnosis, it is bound to become of common use. It has come to stay, it will play a very conspicuous role in the surgery of the future, and it behooves all who wish to be abreast of the times to have it at their command.

SOURCES OF OPPOSITION TO BRANDT'S TREATMENT OF TYPHOID FEVER

The opposition among many physicians to Brandt's treatment of typhoid fever arises from two causes.

First, and chiefly, they have never tried it. They are opposed to it on *theoretical* grounds. They are either too lazy or lack the courage to try it. The opposition of the laity is much less than is generally supposed. Any opposition by the patient or his friends can usually be overcome by giving graduated baths the first day. Soon the patient's friends see the marked improvement in his condition, and become enthusiastic advocates. I have known them to ask their attending physician why he did not give cold baths.

Second. It is improperly given. Cold baths must not be given by rule, but with the same variations and according to the same judgment that medicines are given. The temperature must be adapted to the stage of the disease and to the patient's ability to react. As a rule the higher the patient's temperature the lower should be the temperature of the water; but 65° F. is too cold for a patient during the third week; unless there is hyper pyrexia.

In a severe case, during the third week, in a woman, who had had several hemorrhages, we obtained good results by a few baths at 85° F. Before the baths were given the *patient could be aroused only by loud shouting*. Pulse 120 and feeble; temperature $104\frac{2}{5}$° F. *During the second bath she scoulded vigorously* at the "rough treatment." The temperature promptly reduced, stupor disappeared, and she made an excellent recovery.

Rarely is it necessary to give more than four baths in twenty-four hours. *Friction should be maintained all the time of the bath* (15 minutes) by three attendants.

Unless the nervous symptoms are very pronounced a bath should not be given when patient's temperature is below $102\frac{3}{5}$° F. We usually wait until the temperature reaches 103° F. If given too often they weary the patient. If begun early, given faithfully, and with the same judgment that medicines are given, we believe they are as nearly a specific for typhoid fever as any thing in the whole range of medicine.

RETROVERSION OF UTERUS AS A COMPLICATION IN ABORTION.

Frequently we are summoned in haste with the information that the woman is "flooding to death," and we must come at once Upon our arrival the evidences of the serious nature of the flow are apparent in the blanched condition of patient and the amount of blood about the bed. On inquiry we find that she probably has missed two or three menstrual periods, and was taken suddenly with flooding, the cause of which we will not now stop to inquire. On examination we find a vagina filled with blood, often a soft patulous os, with protruding membranes sometimes, and the uterus *upside down* and filled to *overflowing* with blood which it is unable to expell, owing to its faulty position. In these cases the flow is often most serious, and demands prompt attention. Our practice is to *empty the uterus at once*, under thorough antiseptic precautions, if the os is dilated sufficiently. Usually this is the case, owing to relaxations from hemorrhage. We employ the curette and polypus forceps to empty the uterus, flush out with *tepid* one to 3,000 bichloride solution. insert some iodoform gauze into uterine cavity for drainage, restore the uterus to normal position and pack some iodoform gauze in the vagina to hold uterus in normal position. If the os is not dilated or dilatable we insert some gauze into cervix, restore uterus to natural position and support it with gauze in vagina. In twenty-four hours dilation will be accomplished.

We make it a rule in every case of inevitable abortion to empty the uterus *at first visit* if possible. This stops hemorrhage, prevents sepsis, insures the safety of the patient and brings "peace of conscience" to the physician.

HOBBIES.

We all ride something. Have a hobby, but make it carry something of value. It is necessary for most men to ride a hobby in order to be successful. Their hobby has made them famous.

Simon Baruch's hobby is hydro therapy, Weir Mitchell's is the "rest cure." Salisbury made his fortune by the use of hot water and raw beef. These are all valuable hobbies. While it is necessary to ride a hobby we must remember that, like any other horse, it can be ridden to death. The danger lies in trusting to it at all times and under all circumstances, like the charlatans or the patent medicine man. Here lies the danger of specialties in medicine. The particular organ sometimes becomes so prominent in the specialist's eye that he considers it the great center to which all the other organs are tributary. The orificial surgeon locates nearly all human woes in the rectum. Willard Hall treats all diseases by large enemata of hot water. The enthusiastic occulist sometimes refers all woes to the eye. The gynecologist to the generative organs, or the alienist to the nervous system.

But the greatest danger is from the favorite prescription hobby. This is made to fit all cases and all diseases. S. Weir Mitchell tells of the man who gave Plummer's pill to every patient. We knew of a young physician who gave chloral in the same way. Another gave salol, another quinine, another protonuclein, another strychnine. We all have favorite prescriptions for certain diseases. The danger is of treating the disease

and forgetting the patient. If we must have hobbies let us drive them, but don't let them take the bits in their teeth and carry us to oblivion.

ORIGIN OF MALPRACTICE SUITS.

We are glad to see a much more friendly feeling among physicians than formerly. Malpractice suits would rarely, if ever, be heard of if physicians all exercised properly professional courtesy. Unfortunately worthy physicians have suffered much worry and expense at the hands of pettifoggers, instigated by traitors calling themselves doctors. Even a vindication in court is dearly bought We know of a certain county in Ohio where eleven malpractice suits have been brought against physicians within the professional lives of men now living, every one of which has been instigated by a contemptible cur calling himself a physician.

When the golden rule becomes a part of every physician's code of ethics there will be no more malpractice suits. We have known a number of threatened suits which never materialized because they were discouraged by physicians. It was our privilege to abort one of these suits recently against a homeopathic physician.

The love of mony is the root of this evil, and if a physician is known to be possessed of it he is marked for a victim. The remedy is easy. By putting all his property, personal or real, in his wife's name (every physician ought to have a wife) he is safe.

As we said, we are glad to see a marked improvement in professional morals among physicians. Medical societies are a powerful factor in promoting professional friendship. Many of our medical societies now hold annual banquits to promote friendly social relations among their members and their families. We would like to see this plan adopted by all medical societies. Their value to the profession at large, and to the individual physician can not be over-estimated.

THE HALCYON, ATLANTA, GA.

Several weeks ago I spent a few days in Atlanta, and while there had the pleasure of visiting the Halcyon—Dr. J. B. S. Holmes' Sanatorium. This institution is located on west Cain Street, half way between the two leading thoroughfares of the city and in the immediate vicinity of the beautiful Aragon Hotel. The Sanatorium is on a street without street cars, which renders the occupants free from noise and street traffic. There are, however, care lines a half block away, rendering the place readily accessible. The situation is an ideal one in every way. It contains rooms sufficient to accommodate 35 patients at one time. It has been open eighteen months, and when I passed through there was only one vacant room, which was being renovated for a case to occupy the next day. After each patient is discharged the room is overhauled and thoroughly cleansed. Sixteen nurses are in constant attendanee and employment. When a patient is critically ill a nurse remains throughout the day and night. Each bed contains attachments for electric bells and the entire house is in communication with bells and speaking tubes. Everything about the institution is thoroughly modern and well equipped; in fact no institution in the entire country is superior. The operating room is particularly well equipped, and is situated on the top floor. It is complete in every detail.

MIND CURE.

The wise practitioner may not ignore a fact even though its existence do not harmonize with his preconceptions. The existence of a fact is not established through any prosess of reasoning, but rather through the evidences furnished by the senses. That mind influences matter, and that the functions are affected by mental conditions no observant physician longer attempts to gainsay, These facts have been laid hold of by ignorant, unscrupulous or credulous persons, who have distorted them to the building up of "systems of practice," and as a result we have your Christian scientists, faith curers, high affirmationists, *et id genus omne*, who seek to beguile the unwary.

It by no means argues in favor of these latter day fads to recognize the importance of the legitimate employment of the mind as a medium through which the body and its functions may be influenced. The mentality of the physician and the mental condition of his patient are potent factors in the determination of the outcome of the physical disturbance known as disease. To an extent every successful physician practices the so-called mind cure in every case coming under his care. His patient is not a test-tube in which definite results follow the use of definite re-agents. The quack works cures where the scientific physician has failed, because he has aroused the mental condition of expectancy in his patient. He promises cure and the patient expects it. In the one case it has been the diagnosis of despair, and in the other hope has been aroused. The physician who walks up to the bedside with the long-drawn face, on which are written woe and despair, and whose funeral tones announce that death is hovering near, loses his patient, even before the grim destroyer seizes him, while he whose face is radiant and whose tones promise recovery, retains the case, and often by thus uniting the tonic action of hope with the *vis medicatrix naturæ* does good when the scientific prescription has failed. How often has it been said of the old and tried physician, who scatters sunshine as he goes, "it makes me feel better to have him step into the room."

Is this mind cure? What matters it what name we give it! Although it may not be tangible it affects the mechanism for good as perceptibly often as the zephyrs sway the leaves of the forest.

SERUM THERAPY IN CANCER.

We have read so much of late of curing cancer with the serum of erysipelas, the following case may, therefore, be interesting.

Dr. Th. Sohueler (Berlin) reports the following case: Woman, 47 years old, has had for five years a tumor in the right mammæ, growing rapidly, size as large as a fist and hard as a stone, the tumor is growing together with the pectoral muscles, on touch very sensitive, and condition of patient very bad. As operation was not deemed desirable, Sohueler used a serum of erysipelas from the laboratory of Drs. Emmerioe and Schall.

Twenty-eight cubic centimetres were injected in two weeks. Some redness around the tumor, on the tenth day some fever, tumor very painful and fluctuating. Incision of one-half pint of *pus bonum et laudibile*, discharges for eight days, tumor now the size of a hen's egg. Wound

closed, only a few drops of serous discharge from nipple. Tumor diminishing, getting softer, and is now almost absorbed. General health of patient very good, no pain, and a gain of 14 pounds in weight.

Czerny, of Heidelberg, had, among other cases, one which proved to be a round-celled sarcoma. It was benefitted and is still under treatment. He comes to the following conclusions: The injections are capable of exercising a specific influence on *Sarcomata*, while under favorable circumstances they may cure (Coley). In carcinomata, the injections produce at most a delay in the growth, but no cure. Evidently our scientists are on the right track, and the near future will probably see new and improved methods for hitherto incurable diseases.

LONGEVITY INFLUENCED BY WATER.

Solid and dry as the human body appears, water constitutes more than one-fourth of its bulk, and all the functions of life are really carried on in a water bath, and, although the sense of thirst may be trusted to call for a draught of water, when required, the fluid can be imbibed most advantageously for many reasons besides merely satisfying thirst. In the latter stage of digestion, when comminution of the mass is incomplete, it is much facilitated by a moderate draught of water, which disintegrates and dissolves the contents of the stomach, fitting it for emulgence and preparing it for assimilation. Hence the habit of drinking water in moderate quantities between meals contributes to health, and indicates the fact that those who visit health resorts for the purpose of imbibing the waters of mineral springs might profit by staying at home and drinking more water and less whiskey. Water is the universal solvent of Nature, and the chief agent in all transformations of matter. When taken into an empty stomach it soon begins to pass out through the tissues by an osmotic process into the circulation to liquefy effete solids whose excretion from the system is thus facilitated. Very few people think of the necessity of washing the inside as well as the outside of the body, and he who would be perfectly healthy should be as careful about the cleanliness of his stomach as that of his skin.

DR. C. P. AMBLER RETURNS TO THE WINYAH.

It is very gratifying to announce that Dr. Ambler has returned to Asheville, N. C., and will be associate medical director of the Winyah sanitarium. Dr. Ambler first came to Asheville to assist Dr. Karl von Ruck at the Winyah sanitarium. In establishing its high reputation Dr. Ambler contributed an important part as first medical assistant. After the Hotel Belmont was burned out Dr. Ambler went to New York city, and thence to Canton, O., where he gained an enviable reputation.

One of the prettiest microscopical studies is the examination of the lungs of a plant. Most people do not know a plant has lungs, but it has, and its lungs are in its leaves. Examined through a high power microscope, every leaf will show thousands upon thousands of openings, infinitely small, of course, but each provided with lips which, in many species, are continually opening and closing.

BOOK REVIEWS.

Obstetric Accidents, Emergencies, and Operations By L. C. H. Boislinière, A. M., M. D., L. L. D. Philadelphia, W. B. Saunders, 925 Walnut St. 1896

This work contains nearly 400 pages and is divided into the following sections, Accidents to the women, Obstetric Operations, Accidents to the child.

Of all the accidents which befall the pregnant woman, abortion is the most common. The author has therefore thought proper in this book to treat of it first, giving succinct views as to its symptoms and about rules for its treatment for the guidance of practitioners, who will certainly often be called upon to treat these cases.

The next subject considered is puerperal hemorrhages. Which if not the most frequent, are certainly the most dangerous accidents to which the pregnant woman can be exposed, and the successful management of them will require in the physician a cool head and a stout heart indeed in order to be equal to the emergency.

"Every pilot
Can steer the ship in calms: but he performs
The skilful part who manages it in storms,"

This work as the title suggests is intended for the use of the practitioner who when away from home has not the opportunity of consulting a library or of calling a friend in consultation.

It treats of adhesions and Retention of the Placenta and inversion and Rupture of the uterus, obstacles to labor, uterine tumors, the induction of Premature labor, etc., etc.

That section devoted to obstetric operations is very fine. To those interested in this subject this book will prove a valuable work of reference. It is thoroughly readable. The publisher has issued the book in fine form, the binding good, paper and printing unusually handsome.

Diseases of the Respiratory Passages, By Charles Porter Hart, M. D. Second Edition. Rewritten and enlarged. New York. A. L. Chatterton & Co.

This, the second edition of this work, the author has entirely rewritten and enlarged, adding much matter that is new, mainly clinical, and a large number of illustrations. The author has given us an eminently practical work, furnishing the reader with a choice resume of the best experience of the homepathic school in the treatment of all the more common, and many of the rare diseases of the air prssages, of which our variable climate is so prolific. There is probably no class of diseases that local treatment is more frequently or urgently required than in the affections of the repiratory passages. Hence the author has been very careful to give a great variety of forms of apparatus for this purpose. It contains a large assortment of illustrations in order that practitioners may be assisted in the choice of the most approved instruments for the successful performance of the more common and necessary operations. The work is nicely arranged, neatly printed, and well bound. It contains 350 pages.

Dr. Vassoli, in the British Gynæcological Journal, reports a case of six children at one birth. All the fœtuses were born alive and moved vigorously. The sexual organs were differentiated, four being males and two females.

Literary Notes.

An able and suggestive symposium under the title of "The Engineer in Naval Warfare" is presented as the opening feature of the May number of the North American Review, the contributors to it being such eminent authorities as Commodore George W. Melville, Engineer-in-Chief of the United States Navy; W. S. Aldrich, Professor of Mechanical Engineering in the University of West Virginia; Ira N. Hollis, Professor of Engineering in Harvard University; Gardiner C. Sims, of the American Society of Mechanical Engineers; and George Uhler, President of the Marine Engineers' Beneficial Association. The noted French astronomer, Camille Flammarion, writes most interestingly of "Mars and its Inhabitants," and in "Men Who Might Have Been Presidents," Joseph M. Rogers of the Philadelphia Inquirer throws some important light on the Presidential elections of the past. "The Old Testament not a Millstone" is the theme of a brilliant paper by the Rev. Dr. Geo. Coulson Workman, in reply to Prof. Goldwin Smith's article on "Christianity's Millstone" in the December Review, while the existing state of "Western Feeling Towards the East" is succinctly portrayed by Senator Willinm V. Allen, of Nebraska. "The United States and Great Britain: a Reply to Mr. David A. Wells," affords Mayo W. Hazeltine opportunity to criticize the former's statement of facts set forth in his article in the April Review, and Dr. Louis Robinson in his series of "Wild Traits in Tame Animals" writes entertainingly about "Domestic Cattle." Charles Sedwick Minot furnishes a clever scientific treatise on "The Microscopical Study of Living Matter," and the concluding instalment but one of "The Future Life and the Condition of Man Therein," by the Right Hon. W. E. Gladstone deals with the limitation and reserve of Scripture and the creeds. Other topics dealt with are: "Constitutional Suffrage for Women," by W. S. Harwood; "Great Britain's Service to Civilization," by Capt. A. S. Crowninshield, U. S. N.; "Methodism and the General Conference," by the Rev. F. C. Iglehart, D. D., and "The Agricultural Problem," by M. B. Morton.

Appletons' Popular Science Monthly for May, 1896.—Those interested in political science—and what intelligent man is not to some extent?—will find much suggestive reading in Appletons' Popular Science Monthly for May. The Development of the Monetary Problem is traced by Logan G. McPherson, who shows that the use of the precious metals as money is only a refined form of barter, and is being displaced among the most advanced people by the use of paper representatives of value. Hon. David A. Wells continues his review of The Place of Taxation in Literature and History, describing some very curious and oppressive taxes imposed in France before the Revolution, and a system nearly as burdensome now existing in Mexico. Certain Pending Problems for Wage-Earners are discussed by A. E. Outerbridge, Jr., who warns working people to beware of socialism and other errors in seeking advancement. There is a contribution to the woman question entitled Political Rights and Duties of Women, by George F. Talbot, showing that the power of some women are asking for involves responsibility that they are not adapted to. The opening article of the number is a geological history of Niagara Falls, by J. W. Spencer, under the title Niagara as a Timepiece, with sexenteen illustrations. Dr. James Weir, Jr., contributes an

illustrated article on The Pygmy in the United States, from which it appears that the ancestors of these little people were brought from Africa as slaves. In The Physiology of Colors in Plants, by Prof. D. T. MacDougal, something is told about the utilizing of the sun's rays in colored leaves. Natural Science in a Literary Education is the subject of an article by Prof. A. H. Tolman, who maintains that only a one sided training can be had without science. There are a summary of Recent Work on the X Rays and a Sketch of Prof. H. A. Rowland, of Johns Hopkins University, by C. E. Lloyd, with Portrait and other illustrations. In the Editor's Table, Militarism, the Rontgen Ray, and Scientific Ethics are the subjects discussed.

New York: D. Appleton & Company. Fifty cents a number, $5 a year.

The complete novel in the May issue of Lippincott's is "An Impending Sword," by Horace Annesley Vachell. The hero enters the service of a California millionaire, whose domestic peace is endangered by the threats and wiles of a relentless enemy. Some queer entanglements ensue.

"Resaca," by Maurice Thompson, is a Georgia story of war times. Carrie Blake Morgan turns from verse to prose to relate a cat's escape "From the Valley o' the Shadder." In "Love in the Afternoon," Clara E. Laughlin tells the successful matrimonial adventure of an elderly bachelor. What "The Fiddle Told," through the pen of Nora C. Franklin, was a story that abridged a life-term of imprisonment.

The tale of "The Last Duels in America" is told in detail by one of the principals in both, William Cecil Elam, now an editor in Norfolk. He tells it without rancor or bravado, and incidentally throws light on a state of society and public opinion now—in that respect at least—happily of the past.

Isabel F. Hapgood writes, out of abundant experience, on "Bed and Board in Russia." The need of "Official Residences for American Diplomats" is pointed out by Theodore Stanton. "Highways of the Sea and the Steamships which Traverse Them" are described by Clarence H. New.

"The Abbey of Gethsemane," to which Allen Hendricks conducts the reader, is the Trappist monastery in Kentucky. "An Overlooked Poet" of a hundred years ago is brought to light by F. M. B.

The poetry of the number is by Hattie Whitney, Ida Whipple Benham, Madison Cawein, and Clarence Urmy.

Scribner's Magazine for May opens with the most intimate account of Robert Louis Stevenson in his home-life that has ever been published. This is the first of two papers by Mrs. Isobel Strong (his step daughter and amanuensis) which are to be published under the title of "Vailima Table-Talk." From time to time while acting as Stevenson's secretary Mrs. Strong put down bits of conversation, characteristic epigrams, a jest, or serious talk—just as they occurred. These papers are, therefore, the authentic record of Stevenson's every-day life by one who had his confidence. The papers are illustrated from photographs in the family albums which give an equally veracious portraiture of the family life and travels. Many of the anecdotes will pass into Stevenson history, and an additional charm is given to the first paper by two poems of more than 100 lines which never before have been published.

THE MAY FORUM.—The May Forum contains eleven timely and interesting articles, as follows:

The leading article is a brilliant analysis of "The Political Situation," by Mr. E. L. Godkin, editor of the New York Nation and the New York Evening Post. His conclusion is that the Republican party, in its search for a standard-bearer, has reached "a region of extraordinary intellectual poverty and moral weakness," and he thinks that the election to the presidency of Mr. McKinley would be nothing less than a national misfortune. Mr. William Salomon, a leading international banker of New York, insists upon the need of "A Salutary Mandate to the National Conventions," and urges the people to instruct their delegates to vote only for sound-money candidates. He advocates the gradual retirement of the legal-tender notes. Senator H C. Lodge, in "Our Duty to Cuba," makes an eloquent plea for the recognition of the Cuban insurgents as belligerents by the United States; on the other hand, Prof. John Bassett Moore, professor of international law and diplomacy at Columbia University, New York, discusses "The Question of Cuban Belligerency" from the standpoint of international law, and contends that the state of affairs in Cuba does not warrant such recognition nor the facts justify intervention or interference on our part. Bjornstjerene Bjornson, the distinguished Norwegian poet, novelist, and dramatist, in an extremely interesting and briliant paper reviews "Modern Norwegian Literature." The article (the first of two which he has written for The Forum on this subject) ends with a critical estimate of Ibsen, whose knowledge of human nature, although very wide, is not, in Herr Bjornson's opinion, so great as his passion and art. Mr. A. S. Van de Graaff, of Alabama, contributes an uncommonly interesting and important paper, entitled "The Unaided Solution of the Southern Race Problem." Mr. Van de Graaff, who has studied this problem for many years, calls attention to a remarkable migratory tendency among blacks in the South, and shows that this drift of the negro from that section is slowly but surely solving the Southern race problem. Mr. J. Gennadius, ambassador from Greece to the Court of St. James (ormerly ambassador to Washington), contributes a brilliant and highly interesting article in which he describes the aims and methods of "Modern Archæology," and gives accounts of recent excavations in Greece. A second and concluding paper on this subject will appear in the July Forum. Dr. H. K. Carroll, who had charge of tha religious census, contributes a paper, entitled "Is the Power of Christianity Waning?—No!" Dr. Carroll's statistics show a remarkable growth of the churches since the last census—a growth which has in fact exceeded that of the population. Dr. Wilhelm Rein, professor of pedagogy in the University of Jena, the distinguished German educator, contributes a paper of rare educational interest, in which he traces the development of Pestalozzi's fundemental ideas through Herbart. Under the general heading "Problems of Poverty and Pauperism" are two articles of unusual interest and timeliness just now. The first is by Miss Clare de Graffenried, special agent of the United States Department of Labor, who has studied the problem of the housing of the poor not only in this country but all over Europe. She insists upon the need of better homes for wage-earners, and illustrates her contention by a number of cases where the providing of comfortable and commodious homes by manufacturers for their operatives has been followed by increased efficiency and freedom from strikes.

One of the most pressing and important problems of the day is the problem of the unemployed. Among the many experiments which have been tried to solve this problem, probably the most successful one so far is the potato patch, or cultivation of vacant city-lot system. This system has been in operation during the past year in a number of cities, but in none more successfully than in New York City. Mr. M. A. Mikkelsen contributes an article describing in detail the workings and results of this interesting and successful experiment.

Thus The Forum sweeps over the whole field of contemporaneous thought, and presents to its readers thorough and authoritative discussions of the leading questions of the day, by experts in their respective fields of activity.

Three striking contributions to the May Atlantic are the opening number of a series of letters from Dante Gabril Rossetti to William Allingham, ably edited by George Birkbeck Hill, with a delightful autobiographical sketch of Allingham; Kendric Charles Babcock's discussion of The Scandinavian Contingent, being the third paper in the series on race characteristics in American life; and an anonymous paper of Mr. Olney's fitness for the Presidency.

An out door flavor is given to this issue by Mrs. Olive Thorne Miller's Whimsical Ways in Bird Land, another of her bird papers which have won for her a wide reputation as an acute observer and graceful writer, and Pandean Pastimes, an out door study of Spring from a child's standpoint, by Mrs. Fanny Bergen.

Other features are a discriminating Japanese sketch by Lafcadio Hearn, A Trip to Kyoto, Mrs. Rose Hawthorne Lathrop's Memories of Hawthorne, concluded, The Preservation of our Game, by Gaston Fay, and the Teaching of Economics, by J. Laurence Laughlin.

Fiction is represented by a further installment of Henry Jame's The Old Things, and a striking one-part story of western life by Mary Hallock Foote, entitled Pilgrim Station. Poems, book reviews, and the usual departments complete the issue.

Houghton, Mifflin & Co., Boston.

There is always an endless surprise of good things to be found in Littell's Living Age, and recent numbers have been no exception to the rule. We note in particular "Recent Science," by Prince Kropotkin, the eminent Russian scientist and revolutionist, which consists of two papers, "Rontgen's Rays" and "The Erect Ape-man." The same issue contains an article by Eivind Astrup, "In the Land of the Northernmost Eskimo," and another, "The Chevalier D'Eon as a Book Collector," by W. Roberts. Notable papers in other late issues are "South Africa and the Chartered Company," by Charles Harrison; "In Praise of the Boers," by H. A. Bryden; 'National Biography," by Leslie Stephen; "The Baltic Canal and How it Came to be made," by W. H. Wheeler; Spenser, and England as he viewed it," by Geo. Serrell; "Cardinal Manning and the Catholic Revival," by A. M. Fairbairn; "Personal Reminiscences of Cardinal Manning," by Aubrey de Vere; "The Rival Leaders of the Czechs," by Edith Sellers, etc., etc.

The above partial list gives but a trifling idea of the great field

covered by The Living Age. Published weekly. each issue brings just such valuable scientific, biographical and historical essays, sketches and reviews, to say nothing of the choice fiction and poetry which are equally features of this admirable periodical.

The price, formerly $8.00 a year, is now but $6.00.

Published weekly by Littell & Co., Boston.

In his department entitled "The Progress of the World," the editor of the Review of Reviews makes a suggestive comparison between the Spanish and American navies of the present day. As against the five first-class battle-ships of the United States now afloat (to say nothing of the four in process of construction, and the six others already ordered), Spain has but one battle-ship; while our navy has about twenty vessels, adapted for port defense, Spain's has only one; in cruisers also the United States is far in advance of Spain. All of which goes to show that Spaniards can hardly know what they are talking about when they assert their preference for a war with the United States rather than the acceptance of mediation in the Cuban trouble, for such a war would of necessity be chiefly on the sea.

When you meet an employee of Parke, Davis & Co., whether on the road or in the house, you meet an enthusiast. He does love to expatiate on the wonderful growth of "his" firm—the number of its laboratories, branch houses, agencies, and representatives; its twenty-nine distinct lines of pharmaceutical preparations and its six thousand different products. It reminds you of John Bright waxing eloquent in the House of Commons over his favorite theme—the prosperity of the United States.

But there is good ground for his enthusiasm and for marvel at the amazing success of this firm. Recently they have opened two new branch houses to satisfy the rapidly growing demand for their preparations—one at New Orleans and another at Baltimore.

The price list which Parke, Davis & Co. are now distributing, and which suggested these reflections, is an admirable catalogue in its completeness, convenience of arrangement, and wealth of miscellaneous information. By all means write the house for a copy.

And remember, too, that the products of this firm are so many weapons for your assistance in the perpetual, harrassing warfare with disease —weapons upon which you may rely through thick and thin, in emergencies as well as in routine practice. Their label on a bottle or box means that the contents have been prepared with the utmost skill and with scrupulous deference to purity and activity.

I am not in the habit of giving testimonials and certainly would not do so until I had given the remedy a thorough and satisfactory trial. I have used Seng since first placed on the market, and in no case had it failed me. It is truly a physician's friend in all forms of indigestion and malnutrition, and especially indicated after malarial or typhoid fevers, malarial dyspepsia, and irritable stomach in pregnancy.

Hockley, Tex. O. M. Brown, M. D.

The more faults we ourselves possess, the better it pleases us to remark on those of others.

Vivisection.

George M. Gould, M. D., Philadelphia, Pa., (American Medical Association, May 6). This paper opened by quoting from two physicians, not vivisectors, who were very pronounced in their advocacy of vivisection, which was to be used as a thesis against which was placed the antithesis of the fact of large and powerful societies devoted to the total abolition of vivisection. There is then the thesis of justification and practice of unlimited vivisection on the part of most scientific men and the antithesis of zealous and organized opposition to any and all vivisection which must be kept clearly in mind.

It is plain there must be extremism somewhere, and, as is well known, partisanship is not conducive either to learning or absolute truth, or to a convenient modus vivendi. There is a third party omitted in the enumeration composed both of physicians and laymen, who do not favor the extremists on either side, the author confesses to a feeling akin to pitying disgust for both parties. And there seems to be a sorry tendency among good people to champion a cause with a meaningless name. To get at the truth and to avert error a calm, dispassionate discussion of the case is necessary.

1. What is the truth and strength of the antivivisection party? For if we wish to get at the truth in the matter, we must learn on all sides, no controversialist has all the truth or is wholly in error. It can scarcely be doubted that the first step of human progress from savagery was when man called to his service the wild beasts around him, directly by their help was one tribe able to conquer another. And through their aid and the study of them man progressed and learned that "Each is his brother's keeper, whether the 'brother' be the blade of grass, the bacillus, the cow, the savage, or the lawmaker." Civilizatian is just beginning to grow conscious of this, and that the weal or woe of vegetable life reflects upon the condition of prosperity or happiness of man. This truth is already plain: "Conmensalism, cosmic commensalism, we may denominate the scientific aspect of the truth of what we have called the unity and interdependence of all the world's life." The antivivisectionists have first recognized this truth; they have recognized the fact that animals, all the world of living beings have rights per se. Utter and reckless use of any living thing for human selfishness, with complete indifference to the nature and rights of the living thing is as unscientific as impolitic. To have recognized even emotionally the fact of Life's commensalism is the ground and strength of the antivivisectionist cause, and upon this foundation they may safely build.

2. The weakness and errors of the antivivisectionists are many and patent, and may all be summed up in the one criticism that these good people have not intellectualized their emotions. They attack vivisection, while they let go unrebuked many other sources of cruelty to animals that inflict far greater suffering. Then they make the mistake of calling death vivisection. An animal that is killed for dissection purposes is not vivisected, and by the "total prohibition of vivisection" they mean and represent among other things the abolition of death in the laboratory. If this were the case then the slaughter house and the fish-boat must be taken into consideration and the controversy widens out into the greater problem of the use of the animal world as food.

While the author would rather be a vegetarian than do his own butchery, even under the name of sport for sport's sake, yet it is not human hunger that is exterminating whole species and genera of animals from the face of the earth, but it is the outrageous fury of the hunter and the female vanity—while we have a ray of reason or a line of logic in our minds, we must protest against that mental condition that stigmatizes laboratory killing as vivisection and dines on the product of the slaughter-house. Another point of weakness is the denial of even the least good resulting from vivisection, the author admits that much of it has been worse than resultless, but to contend that all has been is a blunder. Then they weaken their cause by the state of mind they exhibit towards the laboratory men. May not much of it be but the concealed expression of Science-hatred?

3. The truth and strength of the vivisectionist cause lies in the application of the inductive method of research to the solution of the mysteries of normal and morbid physiology, which is one of the most important conditions of scientific progress.

4. Limitations and errors of the vivisectionists The first is an exaggeration of the importance and extent of the vivisection method. Dr. Seguin was quoted to show that most of the brain centers were discovered either prior to or independently of the vivisection experiments.

The controversy has raged most fiercely over the following questions:

1. What is a vivisection experiment?
2. By whom should it be performed?
3. For what purpose should it be performed?
4. By what method should it be carried out?

Scientific men should unite and establish a common set of principles or answers to these questions. They have not taught their opponents (1) what a vivisection experiment is; (2) how very little of such experimentation there is; (3) how little pain attends it. The author thinks that true vivisection should be limited to those properly fitted by education and position to carry it on. At present the greatest harm to science comes from the experimentation of those without the proper preliminary knowledge to make the proper deductions from the experiments. Vivisection is out of place in the public schools.

The true object of vivisection if not the only one should be the eliciting of new truth. Shall not rabbits be killed for scientific purposes just as well as for sport or to rid the Australian of a pest? Another mistake of the vivisectionists is their secrecy; a truly scientific man is necessarily a humane man, and there is no need to conceal anything that goes on in his laboratory.

Much of the controversy is unnecessary and the opponents are much nearer in essentials than they think. Ludwig, the great German physiologist and vivisectionist, was the President of the German Society for the Prevention of Cruelty to Animals. Let there be a calm discussion, a uniting on the things agreed upon and there will be found much less that is opposite and most of this errors and exaggerations.

Burnett's Cod Liver Oil is a standard with the medical profession throughout the whole United States. Write to Theo. Metcalf Co., of Boston, for literature.

Insanity in the South.

J. T. Searcy, M. D., Tuscaloosa, Ala., (American Medical Association, May 6). The paper does not pretend to show that there are types of insanity peculiar to this section, but there are certain sociologic factors which make the title appropriate.

Insanity is nothing more than a name given to a certain kind and degree of aberrant conduct or character. The definition is apt to differ with the medical or legal standpoint. For convenience the legal signification of the word is used, and then it means that the person has reached a degree of aberrant conduct that the State has to interfere with his liberties for his own safety and for that of others. *This* definition medically means that the person's brain has reached such a degreee of defectiveness that he must be taken care of. This is always a matter of opinion, the administration and the law like to have fixed lines, but these pivisions are very untrue and misleading, as there are infinite gradations from the higher to the lower level and there are many peculiarities of the grades above the level called insanity. With this view we have a ready explanation of the fact that when a person gradually descending reaches a level legally known as insanity he carries into his insanity the peculiarities that are inherent in him above that level. In the hospital we have the extremely exaggerated types of defectiveness, and the family race traits show in the exaggerations. Hence in the Southern hospitals there are some peculiarities belonging to this section of the country and to certain classes of the people; every country has them. In the South the whites are almost all Americans, most from the same English immigration; the most self adjustible man in the world is the native American, and this can show even when he is insane; hence the patients are more pleasant to deal with. There is also a difference, not very marked perhaps, according to the part of the country from which he comes, the hill people are not like those from the middle portion, nor like those from the "flatwoods" and coast.

The race traits of the negro show in the negro patients. He is not *actively*, but passively adjustable to his environment. This passivity is the characteristic that has caused him to be used as a slave. The Indian is not adjustable, but dies off in in the presence of changed environments. The negro insane can be managed with more uniformity than whites, on the whole be made more profitable and seft supporting. The negro type of insanity when active is more emotional than the whites; their delusions are weak in scope of purpose and in tenacity. They show when insane, in the hospital the same traits as are shown out of doors.

Insanity occurs most frequently in degenerating ranks in society, i. e. when they are decreasing in brain abilities. Improvement in cerebral ability, above what has been the level of the ancestry and deterioration below what has been the ancestral level are going on in all directions and we do not fully appreciate them.

Among the habits of men that occasion degeneracy, the most frequcnt is simple idleness, and the next the wide spread abuse of such anodynes and anesthetic agents as nicotine and alcohol. In the South during the time of African slavery, brain idleness and brain injury from alcohol prevailed to a greater extent among the whites than they do at present, taken as a whole the "institution" had a damaging cerebral effect not

upon the slave-holding families, but also on the poor whites, and the majority of our insane come from degenerating sources.

The negro was forced to more and higher brain practice than before, and he lived under better sanitary conditions. There was little insanity among the negroes during servitude, now it is increasing rapidly because there are so many lines of-descent deteriorating—a few improving, the majority are deteriorating.

Student Societies in Medical Schools.

A paper by the above title by Professor Roswell Park, Professor of Surgery in the University of Buffalo, was read before the American Academy of Medicine at the May meeting. It related in the main to his own experience with such societies in the schools with which he has been connected. As at present constituted, these societies seem to have little or no relation to the studenten corps or other existing or obsolete student societies of central Europe. They are scarcely even allied to the secret fraternities of various academical departments throughout the country. They seem original and spontaneous. To the best of his belief, the first society of the kind in the country originatcd in the University of Buffalo, where there now exist in the Medical Department two. They are essentially secret societies, each having its own quarters. Almost from the outset of each new student's career, he is watched by the older classmen, with the idea of making him, sooner or later, a member of one or the other of the rival organizations. If he proves of exceeding promise, he is elected early; should he give no promise at all, he is soon dropped from their attention. The period of unconscious probation may be prolonged for months should the case seem to warrant it. After having been elected a member, should the student prove himself dishonest, dissipated or in any degree disreputable, he is either gently droped or incontinently expelled. If he be lazy and indifferent, he is warned, and later dropped if incorrigible. If unsually bright, he is pushed in every way; if simply of average ability, he is encouraged by his fellows and helped in every possible way. In these meetings, which are held once a week, a series of careful quizzes are held, either by members or by younger teachers connected with the School. Social meetings are often held, and lectures are solicited from members of the Faculty or visitors from without. The boisterous and uncouth initiation ceremonies which marked the earlier part of the histsry of each of these societies have been abandoned. Their work throughout is of dignified character and has won the hearty respect and encomiums of their teachers.

In conclusion, Dr. Parks urged the establishment of similar societies in all schools where such do not already exist, claiming that they did much to encourage faithful work, to discourage dissipation, to train men into habits of rapid thought and prompt reply, to encourage the fraternal feeling which is one of the most beautiful features of the higher professional life, and in every way to do good to all of the members.

We have received a copy of Weir's Index to the Medical Press, Vol. I., No. 1. It is nice in size, well printed and has 66 pages. It is something new of its kind. It is one of the best things that has been published.

Alcohol in the Treatment of Disease.

The Southwestern Medical and Surgical Reporter, in a very interesting editorial, has this to say on the above subject:

"The time was when alcohol was believed by the majority of the medical profession to be the ideal stimulant in typhoid fever, pneumonia—particularly in the later stages—and in fact all cases of anœmia or collapse or shock, or in any and all conditions of the system in which the vital powers were by any means brought below par.

Men in the front rank in the profession held out, and a few are still holding out, that alcohol augmented the heart force, and by that means increased arterial tension, and if given when for any reason the heart was unable to properly fill the arteries, and especially those at a distance from the heart, the heart's energy would be revived and the results would be beneficial; and this all in the face of what physiologists had taught many years ago—that alcohol was rather a depressant of the vital powers than a stimulant.

When we know the immediate effects of a large dose of alcohol upon the coats of the stomach, and when we stop to reflect that one of the most apparent effects of alcohol upon the system at large is a benumbing of the sensibilities, how can we doubt its depressing influence?

Real stimulants do not act in this way, but their effect is to increase the tonicity of the nerve supply throughout the system, by stimulating the heart and causing it to beat with more energy, thereby increasing sensibility and giving vigor to all the functions of the body.

The consensus of opinion is now, we believe, that alcohol holds a very limited place in medical therapeutics, and should rarely be used—surely never as a stimulant.

A Study of Homo-Medicus.

Charles McIntire, M. D., Easton, Pa., (American Medical Association, May 6). Most of us desire to know something about ourselves, which fact may make this study of interest. The Homo-medicus under cultivation has developed so many varieties that convenience and brevity demand that attention be given to a single set of characteristics. It is generally believed that the physician, as such, has but little influence in shaping legislation or public policy even in matters relating to medicine; and for equal services is apt to receive smaller pay. Hence the condition may be formulated: The Homo medicus, as a species, is not held in the esteem that, a priori, one would be led to expect by the intrinsic value of his services to the genus. If this is so, why is it so?

Preliminary to the attempt to answer this question, one must recall that the typical species is masked in many individuals by changes produced by environment, etc. This must be constantly kept in view or error will result.

A characteristic of the Homo-medicus is independent thinking. In this he differs from other professions, e. g., the lawyer. This is caused by and leads to separateness in life and individuality in effort. He works largely alone; his work does not pass under review. Hence he not only learns to place reliance on his own conclusions, but also to view lightly the conclusions of others that differ from his own. Another characteristic

is the altruistic feature of his living. Even in the present commercial age, the physician who ostensibly is practising for what there is in it loses caste. The value of his services cannot be estimated by percentages, nor does he reckon them by the dollar and cent standard; the greater the service rendered, the greater the reward, whether a fee is received or not. Again the Homo-medicus developes his depth at the expense of his breadth. His professional engagements prevent regular mingling with his fellows, hence he is not apt to be classed with "men of affairs." Were these characteristics to work out the normal result in every individual, it would be difficult to suggest improvement. But other forces are at work dealing differently in different individuals, which make it desirable that these characteristics should be so directed as to produce the most useful type.

It would be well to bring the altruism of the life to bear upon the mental processes and, while not sacrificing independence, have a consideration for the opinion of others. In this the proper use of medical societies is helpful. Then, it is well to keep in mind that true altruism is not measured by the pleasure it gives the giver, but by the benefit it conferred upon the recipient. A fee insisted upon may be a more charitable act than a gift outright.

Physicians should learn to appreciate the services rendered by their class in an associated capacity and, in this manner, teach others the value of such services by example. When these things shall have been accomplished, and the movement is now in this direction, the Homo-medicus will begin to exert his proper political ihfluence.

Model for an Epileptic Colony.

Dr. Frederick Peterson, of New York City, President of the Board of Managers of Craig Colony, read a paper at the May meeting of the American Academy of Medicine, at Atlanta, on Colonies for Epileptics, in which he outlined as follows the main points to be kept in mind in organizing similar Colonies in other States:

We should aim to provide

(a) *A Home* for a class of individuals cut off all their lives from ordinary pursuits and social pleasures by a malady which robs them of their faculties in most instances for but a few moments each day, or week, or month, or once in a period of several months.

(b) *A School.*—Debarred from the public schools, the epileptic should be given precisely the same opportunities of acquiring an education as he would enjoy if well and living in the outside world.

(c) *An Industrial Education.*—The usual trades and callings of a village should be introduced, and each colonist should be permitted to take up any pursuit for which he seems best fitted.

(d) *Treatment for Epilepsy.*—Every case should be carefully studied and treated according to the best scientific methods.

Having in mind the aims of the colony the following points should be kept in view in establishing it:

1. There should be an abundance of land, for the community is to be given largely to agriculture and kindred pursuits, and there is economy in securing a large and productive tract.

2. The site selected should be near the centre of population and convenient of access to the managers and patients and their friends.

3. The country village idea should never be lost sight of, and everything savoring in any degree of "institution," "asylum," "pavilion plan," etc., should be avoided. A general design should be adopted, with system in the arrangement of the buildings, but no such symmetry as would in any way suggest a public institution. The cottages, villas, and shops should be simple, independent and homelike, with their own little gardens, ledges, etc.

4. As far as possible each home circle should be limited to ten or fifteen patients; much greater aggregations than this are apt to destroy the family character of colony life.

5. The houses need not be especially planned to meet the wants of a particular class of patients, but should be as much as possible like ordinary village houses, though fire-proof.

6. A small hospital, say with twenty beds, will be needed to serve as an observation station for new cases admitted and for such as are bedridden from intercurrent illness, or accident.

7. In addition to hospital cottages, villas, shops, schools, etc., a chapel, library, museum, reading room, gymnasium, swimming brth, rain bath, lecture hall, and well equipped laboratories, should be provided. Some of these being luxuries, may doubtless be obtained by private foundation or memorials.

8. In developing the industries of the colony, the first object is to establish such as will subserve economy. The aim should be to produce most of the food stuffs required, to make the wearing apparel, to carry on domestic work, to make all ordinary repairs and to lay out the grounds. As the industrial side of the colony increases in usefulness, the trained workers should plan, construct and furnish completely all new buildings needed, and other industries should be undertaken which will lead to a profit to be expended in the interests of the colonists.

9. The educational features should never be lost sight of, and in addition to the schools and industrial training, everything that can in any way be helpful in furthering such purpose should be encouraged. The trees and flowers should be labelled with their names whenever possible, and a botanical and zoological garden be established as far as commensurate with the means at command. The collection of objects in natural history, for preservation in the museum, should be a part of the recreation of the inhabitants, and there are many other features too numerous to mention here which will conduce to the success and prosperity of the colony.

10. Finally, I should caution the promoters of such plans for the various States, not to hurry their development, but from small beginnings to gradually evolve an institution which shall reflect credit upon themselves and their undertaking.

Peacock's Chionia has acted so nicely in my hands that I am constantly prescribing it in cases yf hepatic torpor, biliousness, and all diseases caused by a deranged hepatic condition.

Mechanicsville, N. Y. ARTHUR W. JOHNSON, M. D.

Skin Eruptions.

From infancy upwards, various eruptions and rashes occur that, described technically and fully, would only confuse the non-professional reader. It will suffice, therefore, so to specify the more common of these that when met with they may be recognized, and either left to themselves, as many of them may be with perfect safety, or so treated that harm shall not accrue from unskilled interference where medical aid is not readily available. Any one of these, if it happen, as they often do, soon after vaccination, is pretty sure to be attributed to impure lymph, and thus is this boon to humanity unfairly condemned by those who know no better—sometimes by others of whom more wisdom might be expected. Another absurd idea once prevailed, that if these eruptions were interferred with fits and various other terrible dangers were inevitable. The plain answer to all this is, that so surely as they are but the outward and visible sign of some trifling internal derangement, will they disappear without a shadow of risk, if this condition be rectified, wiser, surely, than leaving to Dame Nature what she is sometimes tardy in removing.

Influence of Climatic Conditions and Weather Changes on the Functions of the Skin.

On April 29th, 1896, at the Texas State Medical Association, Fort Worth, Texas, a paper was presented by Dr. Isaac M. Cline, Lecturer on Medical Climatology in the Medical Department of the University of Texas at Galveston, on the "Influences of Climatic Conditions and Weather Changes on the Functions of the Skin." Medical climatology is a subject which is attracting a great deal of attention just now on the part of the medical profession, and many papers may be expected on that line. Dr. Cline's contributions to this subject show that he has given much thought to the general principles underlying the physiological effects of climatic conditions. Based on the results of his investigations Dr. Cline divides climate into three general classes, viz.: low, damp, cold climates; low, damp, warm climates; high, dry climates; and further into three subdivisions or intermediate grades.

In the present paper he discusses the climatic influences on the following functions of the skin:

1st. Secretion and excretion, viz., (a) The secretion of sweat; (b) The respiratory excretion; and (c) The secretion of sebaceous matter.

2d. The regulation of the evolution of heat.

Of the water given off from the body, 30 per cent., and probably more, is through perspiration and cutaneous evaporation. These secretions and excretions are in a great measure controlled by atmospheric conditions, mainly dependent upon temperature, that is the capacity of the atmosphere for vapor of water in excess of the absolute humidity present. At ordinary temperatures the capacity of the atmosphere for vapor of water about doubles for each 18 degrees rise in temperature, and is consequently diminished one-half with each 18 degrees fall in temperature. The greatest amount of cutaneous secretion takes place in the high, dry climate, next in the low, damp, warm climate, and the smallest amount of secretion and evaporation takes place in the low, damp, cold climate, where the elimination of water through the kidneys and lungs is increased.

The secretions from the skin are increased with a rise in temperature and diminished with a fall in temperature.

In the discussion of the influences of climatic conditions and weather changes in the regulation of the evolution of heat, well recognized physical laws are applied so that where the atmospheric conditions are known their effects in the conservation or elimination of heat may be readily understood. In the low, damp, cold climate there is considerable irregularity in the elimination of heat and resultant irregularities in heat transformation. The greatest amount of heat is eliminated in the high, dry climate. In the low, damp, warm climate the conditions are more uniform and the elimination of heat is most uniform.

Prevention of Infectious Diseases.

At the Atlanta meeting of the American Medical Association, a paper by Dr. J. M. G. Carter, of Waukegan, Illinois, on the Prevention of Infectious Diseases was presented before the Section on State Medicine. The writer holds that the use of antitoxins and other means in the hands of physicians are not sufficient. Some radical means should be adopted which will prevent the origination of these diseases. It is well to be able to check their spreading and becoming epidemic, but it is more desirable to prevent the diseases than to check their spreading.

One of the most necessary measures in the author's opinion is a radical change in the method of dealing with the poor. The virulence of these poisons is destroyed by sufficient air or water dilution; hence some relief of the over-crowded, dirty, homes of many quarters of our cities and towns is absolutely essential to prevent the origination of infectious diseases.

The paper concludes with the following resume:

1. Systematic cleanliness should be practiced (a) by thorough disinfection of the patient, the sick room, all instruments, vessels, and other apparatus, or clothing in use; (b) by allowing no unclean or infected fabric or vessel to be taken from the room until rendered aseptic.

2. Prevent individual contact (a) by isolation, segregation, or quarentine; (b) by prohibiting communication between the infected and uninfected, except under strict surveillance of the physician, or in accordance with his explicit directions.

3. Provide thorough and systematic ventilation of cellars and basements, as well as all other rooms, in houses used for dwellings, and give free access of air under floors of houses which have no cellars or basements; supply thorough drainage.

4. Fortify the system against pathogenic bacteria (a) by abundant and suitable nourishment; (b) by insisting upon the observance of the laws of hygiene relating to clothing, eating, exercise and bathing; (c) by the administration of certain drugs, among which belladonna, iron and pilocarpine are prominent; (d) the judicious use of vaccination, inoculation, the serums, or antitoxins, and perhaps protonuclein.

5. The State or city should see that the poor have proper work, food, clothing, shelter, public baths and fresh air.

6. Health officials should keep their wards in good sanitary condition, and see that the water and food supplies are uncontaminated.

The Guaiacol-Carbonate Treatment of Typhoid Fever,

Dr. S. Frankel (Wiener Medizinische Blatter, Feb. 27, 1896), writes editorially on the treatment of typhoid fever and phthisis by Guaiacol-Carbonate as follows:

In the year 1894, Dr. Hoelscher first called attention to the advantages accruing from the use of the neutral carbonic acid ether of guaiacol, Guaiacol-Carbonate, in the treatment of typhoid fever. He shows more especially that the site of decomposition, therapeutic action, and resorption of the drug is to be found almost exclusively in the small intestine. The fever is not influenced by it when antipyretics are not given; for Guaiacol-Carbonate has no such action; but the temperature falls with greater rapidity and certainty when Guaiacol-Carbonate and antipyrin are administered together than when antipyrin is taken alone. He found that there frequently occurred a small fall a few hours after the first dose of 1 to 2 grammes (15 to 30 grains). This was a direct consequence of its local action in the intestines, and was of good prognostic significance. When Guaiacol-Carbonate was given early it was frequently unnecessary to treat the fever at all, and the disease ran a mild and rapid course. Dr. Seifert proved the non-poisonousness of the combinations of Guaiacol and Creosote with Carbonic Acid.

There has lately appeared a very exhaustive study made by Dr. Eschle in Prof. Dr. Baumann's physiologico-chemical laboratory in the medical department of the University of Freiburg, which contains much interesting information concerning the conditions that govern the absorption and excretion of guaiacol and Guaiacol-Carbonate. (*Zeitschrift fiir klinische Medicin*, vol, xxix, 3 and 4). He found that Guaiacol-Carbonate was a perfectly indifferent substance as regards the mucous membranes with which it came in contact. It was absolutely non-poisonous; for phthisical patients were given 6.0 grammes (90 grains) daily, and dogs as much as 75 grammes (2½ ounces) daily without causing the appearance of any symptoms of intoxication. Eschle's researches were directed towards the examination of these facts, as well as towards a scientific comparison of the pure guaiacol with its carbonic acid salt. By experimenta tion upon himself he proved the remarkable fact that the Guaiacol-Carbonate seemed to be the better used up the smaller the dose that was taken, even though the amount absolutely excreted increased with the enlargement of the dose. He proved further that even after giving the largest possible medicinal doses of guaiacol, which has only been feasible since the introduction of the carbonate, only a little over one-half at the most of the sulphuric acid in the urine was used to combine with the excreted guaiacol in the form of an etherial sulphuric acid. His experiments proved also that only the putrefactive among the many processes at work in the gastro-intestinal canal, were capable of effecting a decomposition of the Guaiacol-Carbonate. This confirms the opinion of Seifert and Hoelscher, that in healthy persons the Carbonate of Guaiacol is decomposed in the intestines and not in the stomach, whilst in phthisical cases the process occurs in the stomach itself. This is the more important since Eschle proved that the decomposition was dependent on the intensity of the putrefactive processes in the intestines. Guaiacol-Carbonate is only decomposed in sufficient quantity to restrain fermentation; and,

quite independent of the dose, it responds to the necessities of the canal; a thing that liquid guaiacol and beechwood creosote do not do.

He summarizes his results as follows:

Both the absorption and the excretion of pure guaiacol occurs very rapidly. Guaiacol-Carbonate is disassociated and rendered capable of being absorbed only by putrefactive processes under normal conditions, therefore, when there is intestinal putrefaction. The duration of the excretory process does not differ markedly from that of the pure guaiacol. Hence, and also from the further fact that by the long continued use of guaiacol and Guaiacol-Carbonate in medicinal doses in man, and even in toxic doses in dogs, the increase of the etherial sulphuric acid at the expense of the sulphuric acid is constant in amount, there can be no cumulative action of the drug. And Guaiacol-Carbonate seems to be the more thoroughly used up, the smaller and the more frequent the doses in which it is given. The explanation of this is to be found in the fact that the administration of large doses interferes with intestinal putrefaction and prevents the decomposition of the carbonate. In phthisis, therefore, Eschle recommends administering a dose of 0.3 to 0.5 gramme (4½ to 7½ grains), of the carbonate four times daily.

After very large doses of guaiacol there appears in the urine an organic body of as yet an unknown nature. Hydrochloric acid precipitates it in tough mucous-like flakes, and it might thus occasion occlusion of the uriniferous tubules and stoppage of the function of the kidneys, thus fatally damaging the organism. This body was never observed when Guaiacol-Carbonate was administered; proving, as Seifert has already shown, that whilst guaiacol in large doses is poisonous, Guaiacol-Carbonate is not so.

Dr. Arthur J. Hall, of Washington, D. C., in a letter to the Editor of the Journal of the American Medical Association, dated March 12th, 1896, and published in the issue of March 21st, 1896, discusses the so-called Woodbridge abortive treatment of typhoid fever. At the meeting of the Mississippi Valley Medical Association at Hot Springs, Nov. 21st, 1894, Dr. Woodbridge, as the result of several years' experience with this treatment, recommended three special formulæ containing Guaiacol-Carbonate to the extent of 33⅓ per cent. Dr. Hall admits that he has tried the Woodbridge treatment of typhoid fever in a number of cases with excellent results, and that he believes that many of the claims regarding the amelioration of symptoms are well founded. But the same excellent results have occurred when Guaiacol-Garbonate was used alone, or in conjunction with mild laxatives and enemata when such were indicated. He believes that the good results obtained should be credited to the Guaiacol-Carbonate alone; since the other ingredients of the formulæ (thymol, menthol, eucalyptol, podophyllin and calomel) were in more or less constant use before the latter had been placed upon the market and had failed to accomplish similar results.

Dr. F. M. Greene, of Lexington, Ky., in an article in the Journal of the American Medical Association, April 4th, 1896, discusses the etiology and treatment of typhoid fever, and more especially the so-called Woodbridge treatment. He regrets the attention that was paid in the discussions on that subject at the recent meetings of the American Association at San Francisco and Baltimore to the Brandt hydriatic treatment, to the detriment of the Woodbridge method, This latter Dr. Greene has used

in a number of cases during the last year; he has succeeded in aborting the disease and he has no hesitation in testifying to its superiority over all the other methods.

By this antiseptic and disinfectant method, he claims, we have really only two periods to this formidable disease; first, a period of rapid reduction of temperature, and secondly a period of convalescense. By destroying the germs early in the attack, and before the development of the toxins, we at once abruptly interrupt its course and prevent the complications so frequent when the disease has existed for any great length of time. Tympanites, when present, disappears; dry tongue and delirium are prevented; diarrhœa ceases; pyrexia stops by the tenth or twelfth day and the patient at once enters upon a favorable convalescence. With mind clear and muscular strength preserved, he is enabled to leave his bed by the end of the second week, and solid food may be allowed him much earlier than under the old regime, because there are no ulcerations of the ileum to contraindicate its use.

Dr. Green believes that these results are brought about by both intravascular and intestinal disinfection. Intestinal disinfection has long been known to be an important indication in the disease; but the difficulty has been to find a remedy that will accomplish this, and at the same time be harmless to the system. He believes the guaiacol to be the active agent in the treatment, destroying the typhoid bacillus both in the intestinal canal and in the blood and tissues. It can only be used, however, in the innocuous and non-irritant form of the Carbonate of Guaiacol introduced by von Heyden. Decomposition occurs only after it leaves the stomach; carbonic acid and pure guaiacol are set free, and the latter then exerts its proper medicinal effects.

He has observed under its use that the characteristic typhoid stools become more consistent and lose their offensive odor. The smell of creosote can be detected both in the urine and the fæces. He concludes that the treatment is superior to that of Brandt; for the latter will not abort the disease, or prevent serious complications.

Dr. W. Bayard Shields, of St. Francis, Ark., in the same journal one week later, also discusses the treatment advocated in typhoid fever by Dr. Woodbridge. It is based, he says, on the inhibitory influence which antiseptics frequently administered have on the typhoid bacilli in the intestinal canal, checking their activity, and hence preventing the rapid and abundant development of toxins, the absorption of which into the system produces the grave nervous troubles so frequently seen in the disease.

Dr. Shields used the Woodbridge formulæ, containing podophyllin, calomel, menthol, etc., as well as the Carbonate of Guaiacol; but he believes the most valuable ingredients to be the Guaiacol-Carbonate and calomel. The average duration of twenty-tbree cases treated by this method was fifteen and one-half days. Only two had intestinal hemorrhages. The tympanites, even then marked, was relieved in a few days Whilst his results were not so good as those of Dr. Woodbridge, Dr. Shields regards this treatment as his sheet anchor; for in a uumber of cases the results were apparently brilliant.

If on the first day the temperature rises to 105°-106°, the fever is neither typhoid nor typhus.

Prolonged Intrauterine Retention of an Ovum.

Orloff records the case of a pluripara, aged 43, who in November, 1893, five years after the birth of her tenth child suffered from jaundice and amenorrhœa; in February, 1894 from melæna and hæmatemesis and enlargement of the abdomen; she was tapped three times for ascites, and died on November 9th, 1894, from cirrhosis and rupture of a branch of the coronary vein of the stomach near the cardia. In the right horn of the uterus were the remains of a spherical ovum about 2.5 cm. in diameter, consisting of the chorion with many calcified villi; the amnion and embryo had apparently escaped through a tear in the lower part of the ovum, which had no organic connection with the uterine wall. Under the microscope the mucosa showed where the ovum had been attached. Orloff estimated the development of the ovum from two to three months, that the retention had lasted about a year and that there had been no uterine hæmorrhage.

Resnikow records the following case: A patient who had been twice confined (of twins the last time), when again seven months gravid had a severe illness with fever, during which labour pains came on, but only for a short time. She afterwards had a purulent discharge and rigors, followed by amenorrhœa. After four years the uterus was dilated, and the bones of a seven months' fœtus removed, and she recovered her health. Two similar cases are quoted.

State Medicine.

A. B. Tadlock, A M., M. D., F. R. C. P., Knoxville, Tenn., (American Medical Association, May 6,). Much misapprehension exists as to the definition of State Medicine. If medicine is the art and science of preventing, alleviating and curing disease, State medicine simply means the rational application of the principles by public authority for the public weal. Then sanitation, which secures, and hygiene, which preserves health, constitute but a very small part of State medicine. Indeed, as therapy supplements physiology and pathology, these branches only supplement State medicine.

As State craft is not the exclusive property of any one government, so State medicine protests against political boundaries or class distinctions, Though not appreciated as it should be, it is true that no knowledge is more sought after from the practitioner than questions relating to State medicine. The health and efficiency of armies as well as the prosperity of communities may always be estimated by the success of the application of State medicine to the public interest. The field of the study is world-wide, taking cognizance of the health, safety and happiness of every human being from the start to the finish.

The obligation of governments should obtain wherever the duty of subjects is expected. A life lost from preventable causes, due to the governmental neglect of State or sanitary matters, is no less censurable than the railroad management which, by culpable carelessness, entails disaster and death upon the travelling public. Ths maximum of benefits is, probably, to be attained through International Co-operation. Germany, e. g., excluded American pork on account of trichinæ until the United States adopted measures to insure the prevention of the importation of

such meat. As the nature of epidemics becomes better understood, the necessity for international co-operation will be more manifest.

At the same time there should be supervision at home. It should be the care of the government to maintain every part in a sound condition. Sickness is an expensive luxury; lack of health weakens. The worth of a nation depends largely on its soundness. The government, for sanitary advantage, should provide complete vital statistics, and furnish commissions to properly investigate sanitary conditions. Only by its aid cnn there be successful quarantine. While State and commercial rights should be respected and fostered, they should not be permitted to interfere with public health. Health should command as much national respect as personal liberty, and corporations should be made to understand that its preservation is more important than to increase their net earnings.

In municipal affairs, notwithstanding State and government supervision, much is to be done. Competent men should be appointed to the boards of health with power to collect vital statistics, and other necessary information, and to have supervision of all institutions and industries, etc.

The subject of sanitation is a field for the specialist, and no more important subject offers itself to the study of the physician.

Relations of Medical Examining Boards to the State, to the Schools and to Each Other.

Dr. William Warren Potter, of Buffalo, president of the National Confederate of State Medical Examining and Licensing Boards, chose this title as the subject of his annual address at the sixth conference of this body held at Atlanta, May 4, 1896.

He said there were three conditions in medical educational reform on which all progressive physicians could agree, namely, first, there must be a better standard of preliminaries for entrance to the study of medicine; second, that four years is little time enough for medical collegiate training; and, third, that separate examination by a State Board of Examiners, none of whom is a teacher in a medical college, is a prerequisite for license to practice medicine. It is understood that such examination can be accorded only to a candidate presenting a diploma from a legally registered school.

He further stated that a high school course ought to represent a minimum of academic acquirements, and that an entrance examination should be provided by the State for those not presenting a high school diploma or its equivalent.

He did not favor a National Examining Board, as has been proposed, but instead thought all the States should be encouraged to establish a common minimum level of requirements, below which a physician should not be permitted to practise, then a State license would possess equal value in all the States.

In regard to reciprocity or licensure, Dr. Potter thought it pertinent for those States having equal standards in all respects to agree to this exchange of inter-State courtesy by official indorsement of licenses, but that other questions were of greater moment just now than reciprocity. Until all standards were equalised and the lowest carried up to the level of the highest, reciprocity would be manifestly unfair.

He urged that the States employ in their medical public offices none but licensed physicians. This. he affirmed, would tend to stimulate a pride in the State license, and strengthen the hands of the boards.

He denied that there was antagonism between the schools and the boards, as had been asserted. He said that both were working on parallel lines to accomplish the same purpose, that there could not possibly be any conflict between them, and that they were not enemies but friends.

The medical journals of standing, from one end of the country to the other, he affirmed, were rendering great aid to the cause of reform in medical education, and the times were propitious.

He concluded by urging united effort by the friends of medical education, saying that "the reproach cast upon us through a refusal to recognize our diplomas in Europe cannot be overcome until we rise in our might and wage a relentless war against ignoranee, that shall not cease until an American State license is recognised as a passport to good professional standing in every civilized country in the world."

Gant's Femoral Osteotomy for Correction of Hip Deformity in Adults, with Report of Cases.

At the annual meeting of the American Orthopedic Association, held in Buffalo, N. Y., May 19th, 20th and 21st, Dr. A. R. Shands, Professor of Orthopedic Surgery in the Columbian University, Washington, D. C., read an interesting paper with the above title.

The writer expressed surprise that the clinical literature on this important subject is not more extensive when the excellent results are considered that can be obtained by an operation that is fraught by little or no danger. The writer considers that there is no capital operation in the whole range of surgery that is accompanied with less danger, and surely none in which the result is more desirable, especially when considered from an æsthetic point of view.

The writer pointed out in detail the advantage of Gant's operation for correction of hip deformity due to bony, or firm fibrous, ankylosis of the hip joint. He then described in detail the technique of the operation.

As to the after treatment Dr. Shands expressed preference for the use of a *properly* applied Plaster of Paris spica to hold the limb in position during the time of the procees of union of the divided ends of the femur. In the cases he reported he was enabled by the absolute immobilization of the limb obtained by the Plaster of Paris spica to allow the patients to be lifted with perfect comfort from the bed to a reclining wheel chair and taken into the open air daily after the first week, and by that means was avoided the monotony of a long and tedious confinement to bed.

In conclusion of his paper he reported in detail several cases that he had operated on, showing a most excellent result in each case.

One case was a lady, 40 years old, with a hip firmly ankylosed with 30° of adduction deformity, giving her five (5) in. of apparent shortening. This deformity was of twelve years standing, and due to rheumatism. By means of a Gant's femoral osteotomy the deformity was entirely overcome, and legs made of equal length.

Another case, aged 30, that he reported, should be of interest to the gynecologist, as well as to the orthopedist, on account of the distortion

of her pelvis due to the flex hip, the hip being flexed at a right angle, a result of old hip disease, she had a displaced uterus, causing her to be a great sufferer from dysmenorrhœa.

Result of the osteotomy in this case was not only that the hip was made straight, but as a result later on the uterus replaced itself, and then the dysmenorrhœa disappeared.

In both of these cases, with the exception of the usual ether nausea, the patients made an uninterrupted recovery; temperature never going above 99° after first 24 hours.

Review of the Results of the Author's Method of Anchoring the Kidney.

Dr. R. H. Reed (Ohio State Medical Society, May 27), called attention to the paper he read before the Columbus, (O.,) Academy of Medicine, November, 1894, on "A New Method of Anchoring the Kidney." Dr. Reed stated that his operation consisted in making the ordinary perpendicular abdominal incision over the median line of the kidney, As a rule, it need not exceed two and a half to three inches in length, depending largely on the thickness of the abdominal walls. Having made the incision sufficiently large to get the fingers in and bring the kidney to its normal place, he then used a long needle which he had had made on purpose, varying from five to seven inches in length. Two of these needles were threaded with aseptic silkworn gut or aseptic silk, using but one ligature, armed with one of these long needles at each end. Having placed the kidney in its normal position (and in the case of a floating kidney scored the peritoneum so as to favor adhesions) he then inserted the first needle through the upper and inner part of the cortical substance of the kidney, directly through the muscles of the back, coming out between the eleventh and twelfth ribs. The second needle which is on the other end of the ligature is also passed through a similar manner, about an inch from its fellow through the upper and outer cortical substance of the kidney, making as you will recognize, a "staple stitch." These ligatures are tied on the integument of the patient's back by an assistant. If necessary another suture is inserted in a similar manner through the outer margin of the kidney, the first needle of the second suture being passed about an inch below the last needle of the first suture, and the second needle of the second suture about an inch below the first needle of the second suture through the cortical substance of the outer portion of the kidney.

The author stated that since devising this method of operation he has made five operations himself and assisted his colleague, Dr. Means, in making one, all of which were successful and in each instance the patient recovered without a bad symptom, in fact, there was scarcely a rise of temperature or change of pulse.

In two of these cases, subsequent operations were made for ovarian trouble in which he had an opportunity to examine the anchored kidney and in each instance found it firmly adherent in its normal position and so far as could be ascertained by manual examination it was perfectly healthy.

It is true, the doctor said, that a half dozen cases are not enough to prove that this method of anchoring the kidney is without fault, but cer-

tainly it was sufficient to show that the method was practically devoid of danger, and from personal experience, he was thoroughly convinced that it was a great improvement in every respect over the old method of fixing a movable or floating kidney.

Mastoid Abscess Complicated with Lateral Sinus Thrombosis and Diabetes; Operation; Recovery.

This is the title of a very interesting paper read before the Kansas Medical Society, at its last meeting in May, 1896, by Dr. G. A. Wall, of Topeka, Kansas.

The trouble followed an acute attack of hemorrhagic otitis media in a lady, 62 years of age, and diabetic. From the day of the operation the patient made an uninterrupted recovery and at present is attending to her usual household duties, the hearing in the ear is normal, which is certainly unusual after so severe an operation. Under the proper dietary the sugar decreased from 7 per cent. on Nov. 12, to less than one-half of one per cent. at present. The diagnosis in the case was made by the violent oscillations of temperature, it having gone as high as 106 F., and down to normal in the course of a few hours. The main diagnostic symptom, according to the author, to rely on is the temperature.

The author briefly covered the literature of Sinus Thrombosis, stating that the number of cases of lateral sinus clot so far reported, as far as he was aware, was 86, with 58 recoveries and 28 deaths. In American literature he stated that only four cases had been reported, and his was the last. He claimed that nearly all cases of even simple mastoid trouble, when in a diabetic, were very liable to end in death.

The author dwelt forcibly on the dangers of middle ear inflammation when there was any kidney disease, especially diabetes, since all middle ear inflammations of an acute character were more liable to end in serious complications, when such was the case. He also stated that, in all hemorrhagic inflammations of the middle ear, not due to injury, we should always examine the urine very carefully, especially for sugar.

The case was taken ill on November 4th, 1895, operated on December 17th, 1895, and was up and around on January 6th, 1896, a little over two weeks after the operation.

The author believes that he deserves especial credit for a good diagnosis of an obscure disease which has not been made as frequently as it should have been heretofore. Dr. Keen states that it has only been since 1884 that the disease has been diagnosed and successfully treated.

Dr. L. M. Roberts, Little Falls, Minn., writes as follows: "Stearate of zinc is an absolute specific for the chafing of diapered infants, it turns the urine off the skin, cools it, heals it, and, exhibited side by side with any of the other really meritorious articles in the market, excels them greatly. It never fails, as all others do, simply because it is non-hygroscopic; it acts in excessive 'weeping' eczemas just as readily.

For very corpulent people, who chafe as they walk and suffer torture from the ensuing rawness and pruritus, it is literally a God-send."

Infection in Inherited Syphilis.

After referring to the opinion strongly expressed by Colles, and by Diday, and other French observers, to the effect that inherited syphilis was eminently infectious, Dr. Coutts, in a lecture delivered before the Royal College of Surgeons of England, quoted the experience of the Shadwell Hospital for Children, covering many thousands of cases drawn from a class in which syphilitic babies were often indiscriminately suckled by other women than the mother and kissed and fondled by many other persons. Only five examples of the incurrence of syphilis could be discovered, and of these four would fall into the category of exceptions to Colles's law that a mother was not infected by her own syphilitic infant. "That inherited syphilis," he continued, "is occasionally contagious is certain, but it is equally certain, I would contend, that the virulence of such contagion has been grossly and vastly overestimated. It is impossible to reconcile the experience of certain French writers in this respect with our experience in this country, even when the greater frequency of wet nursing in France is fully admitted. There are certain reasons, or suggestions rather, by which I think the infrequency of the contraction of syphilis from infants suffering from the inherited complaint can be partially explained. The syphilis in such infants, it must be remembered, dates from conception and not from birth, and at the age at which symptoms appear such a syphilis generally of about a year's standing, and may have lost some of its pristine virulence during both uterine and extra-uterine existence. In marked contrast to the rarity of infection from inherited syphilis is its frequency from the acquired form in infants. Only one instance is within my personal knowledge where a syphilis acquired by an infant was not communicated to one or more persons brought into contact with the child. Numerous instances are on record, from the time of Ambroise Pare onwards, where infantile acquired syphilis has been the cause of severe outbreaks amongst relatives and friends. Recently I learned of one in the East of London where acquired syphilis in a child spread to five others in the same family besides strangers. Colles's law," he continued, "in reality consists of two separate parts, the one that the mother of an infant with inherited syphilis cannot contract the disease from her own child, and the other that such an infant would almost infallibly contaminate a healthy wet nurse. The fact of the inclusion of this second proposition is generally forgotten by writers contending for the absolute validity of the law. In dealing with the contagiousness of inherited syphilis, I endeavored to show that this part of the so-called law is far from true. It may well be, then, that the main safety of the mother lies in the little liability of the infant to transmit the disease rather than in some protective quality residing in herself, due to the fact of her having borne a syphilitic infant. For my part, I think both such factors possibly conduce to the safety of the mother. Is the first part of Colles's law absolute? Has an infant with inherited syphilis never contaminated the mother? In Colles's own practice, and in those of others since his day, cases have from time to time occurred which were apparently exceptions to the law. Some of these cases are so imperfectly recorded that discussion of them is hardly called for. Others, on the contrary, Dr. George Ogilvie writes, 'are as conclusive as any recorded clinical facts can be.' Fournier, somewhat grudgingly it would seem to me, admits the validity

of some such cases, and he would appear to regard the subject of exceptions to Colles's law as of little practical importance on account of their extremely exceptional character. Mr. Hutchinson has lately stated that he not only admits the possibility but the probability of these exceptions. I am the more pleased at this admission in that it places him in accord with Fournier and other authorities in the matter, and that it is also in some sense a further justification for the belief in myself and others that we have actually met with exceptions to Colles's law. Mr. Hutchinson's sole contention is, I believe, that as yet no exceptions have been recorded worthy of trust. I am unwilling to differ from him, but I must state my conviction that Dr. George Ogilvie's admirable paper at the Royal Medical and Chirurgical Society is conclusive on the point. Granted the pos sibility of exceptions to Colles's law, ought such eminently infrequent occurrences to largely modify our practice in allowing apparently healthy mothers to suckle tainted infants? Personally, I should say decidedly not. If ever legislation for the many to the detriment of a limited few is justifiable, the case in question calls for it. Following in the same path as Henoch, the only limitations I would place on suckling by mother or wet nurse would be the presence of excoriation on her nipples and that of ulcerations or fissures about the mouth of the infected infant.

Artificial Delivery after Maternal Death.

Claverie says that when a woman dies before labour has commenced, immediate delivery by the natural passages is necessary. The cervix should be laid open to facilitate immediate dilatation. Cæsarean section, it is said, has revived apparently dead women when the knife had already been used too freely and too roughly to allow of permanent resuscitation. Some of these gruesome incidents may be fables, muscular twitchings being mistaken for signs of life. In any case, however, no woman has been victimised in this manner when delivered after Duparcque's principle, whilst several have proved to be alive and subsequently recovered. Though delivery through the vagina takes some time, it can be commenced at once in private or hospital practice, so the child is usually got out more quickly than by Cæsarean section. It appears from statistics that as many, if not more, children are saved by Duparcque's method. The cutting open of the cervix is, of course, very essential when the body is that of a primipara. Artificial delivery is always preferable to Cæsarean section if it is not quite certain that the mother is dead.

Pneumatic Truss Pads.

Those who are obliged to wear Trusses have suffered from pads that are supposed to hold up the ruptured parts, and to alleviate the pain thus caused, hard and soft pads have been devised, and all proven more or less unsatisfactory.

A Pneumatic Truss Pad that is non-collapsible has been invented by G. W. Flavell, and can be used on any Truss. It has been found to correct all the difficulties of the old pads and gives instant relief.

One of the New Pads should be in every Physicians' office, and a sample can be obtained at the nominal price of 50 cents, from G. W. Flavell & Bro., 1005 Spring Garden St., Philadelphia, Pa.

Stimulants, Are Preferred to Depressants.

By Dr. W. F. Waugh, Professor of Practice, Illinois Medical College.

It is characteristic of phenylacetamide that its greatest triumphs are won by combinations containing this drug, rather than by it when given alone. There are many of these combinations that have won popularity by their undeniable efficacy, and, while phenylacetamide is the principal constituent, they all excel that drug when it is given alone. The "antinervine" mixture, of phenylacetamide, sodium salicylate, and ammonium bromide, in varying proportions, is one of the best of these for many diverse forms of pain. Within the last year, however, it has been largely superseded in my practice by ammonol.

Therapeutically, this may be said to combine the properties of phenylacetamide and ammonia, and the latter appears to hasten the action of the coal-tar product, so that the effect is manifested much more speedily than when given alone. This renders ammonol especially valuable in the severe forms of nervous headache, where the intense pain demands quick relief. Not the least advantage here is that it does away with the need of morphine hypodermics, almost the only means of affording speedy relief previously. As neuralgic attacks are invariably characterized by depression of the vital forces, it will be seen that the use of ammonia enables us to avail ourselves of the powerful aid of phenylacetamide in many cases that without it could not be treated by any coal-tar derivative. One case illustrates this point: A lady in New Mexico was subject to excruciating attacks of neuralgic headaches; blinding headaches, she called them. Phenylacetamide at first relieved her, but soon failed; and when the dose was increased until she became blue, great depression and fainting ensued, and yet the pain was not relieved. She was given ammonol, and this gave complete relief, not only at first, but now, over a year from the day she first took it, she still obtains as much relief from the original dose of five grains. This case has created a steady market for ammonol in the New-Mexican town in which she resides.

The same result has followed in several cases of dysmenorrhea, both spasmodic and congestive. In the former, ammonol is usefully combined with helonias and ammonium valerianati; in the latter it needs no assistance. Here, also, there is no need of increasing the original dose; in fact, as the habit of looking for relief from ammonol becomes fixed in the mind, smaller doses will suffice to give the needed relief.

There is a third group of painful affections in which ammonol not only gives certain relief, but does so more certainly than any other form of phenylacetamide compound. This is the headaches dependent on or accompanied by acid or irritable stomach. It is now recognized that many headaches are uricemic; that sickness is not so frequently an evidence of depression as Austie claimed, but rather is caused by the presence of toxic acids, whose absorption into the circulation gives rise to the headache. We have, then, in ammonol, the remedy that meets exactly *all* the indications present: an antacid, to neutralize the uric or acetic acid present; an antiseptic, to stop fermentation or microbic toxin generation; and an analgesic, to relieve the pain. In rheumatism, and in some forms of intestinal fermentation, it seems probable that the addition of

salicylic acid, probably an ammonium salicylate, would be desirable, as increasing and prolonging the antiseptic action of the phenylacetamide.

Altogether, we have in ammonol a happy combination founded on just therapeutic principles; one from which we obtain effects superior to those of the components given separately; and as such, ammonol deserves a place in every physician's *vade mecum*.

103 State Street, Chicago.

Laparotomy in Tuberculous Peritonitis.

Gatti (British Medical Journal) has experimented on guinea-pigs, dogs, and rabbits. In these animals the parts first and most attacked are the great omentum, the gastro-hepatic and gastro-splenic ligaments. In guinea pigs the caseous form predominates, in dogs the fibrous, in rabbits the mixed. In guinea pigs a thickening of the great omentum below the stomach is very soon observed; in dogs and rabbits there is (1) a stage of miliary tubercle; (2) confluence of the tubercles with great increase in thickness of the omentum; (3) the stage in which the omentum becomes tumefied. Laparotomy has no effect when the tubercle is not yet developed or in an early stage. In the first three to five days after laparotomy the tubercle does not present any macroscopic modification, but a small quantity of reddish serous fluid is found in the peritoneal cavity. From seven days to almost a month after the operation the tubercles are almost found to be increased; only after about a month do they begin to show a diminution. In many animals this decrease was only macroscopic; in others microscopic as well. Histologically from eleven to twelve days after the laparotomy there is no increase of the lymphoid cells; no phagocytosis in guinea pigs; in dogs the phagocytosis is about the same as was found at the time of the operation, but there is no karyokinesis, There is no development of fibroplastic cells as described by various authors. The result of the author's observations is that healing takes place by degeneration of the epitheloid cells, independently of phagocytosis, without the formation of new connective tissue, contrary to what had been previously pointed out by many authors. As to the factors which stimulate this process, the author directs attention to the serous fluid found one, three and five days after the operation, which seems to saturate the tuberculous mass, exerting a bactericidal and attenuating action on the bacilli.

N. K. Vassilevsky has also experimented on this subject. Several rabbits were injected with a pure culture of Koch's bacillus; an artificial tuberculous peritonitis having thus been produced, laparotomy was after a time performed. The author's conclusions are: (1) The operation alters the histological character of the tuberculous growth in that an increase of the epithelioid cells takes place in them, and diminishes at the same time in the tuberculous granulations the number of the white elements. (2) The laparotomy checks the general dissemination of the tuberculous process. (3) The operation reduces the number of the Koch's bacilli in the tuberculous granulations, and promotes the resorption of the products of the decomposition which took place in the tuberculous granular growth previous to the operation.

Eucaine, a New Local Anæsthetic.

By H. Kiesel, Dentist, Berlin.

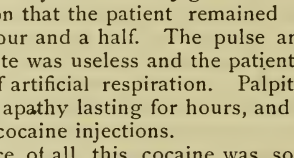
(*Translated from the "Zahnarztliche Rundschau," Berlin, April 5, 1896.*)

When one talks or writes of a new local anæsthetic nowadays, it is met with a dubious shake of the head, and either its failure or the report of toxic by-effects that rob it of all its value is awaited. For the list of such remedies is by no means a small one; yet there is none that is always applicable or successful.

Once it was thought that cocaine deserved its place at the head of the list of the local anæsthetics, and it received an enthusiastic welcome. But soon its too frequently severe toxic effects were learned; it was seen that its solutions readilly decomposed and above all, its non-reliability was recognized, since in some cases even large doses were found to have little or no effect, and in other instances the injections of small amounts would be followed by excessive reaction. The author has himself had the experience of an injection of 0.05 grams of cocaine (¾ grain) causing so violent a reaction that the patient remained in an apparently lifeless condition for an hour and a half. The pulse and the respiration seemed to stop; amyl nitrite was useless and the patient's life was saved only by the vigorous use of artificial respiration. Palpitation, feelings of apprehension, tiredness, apathy lasting for hours, and even vomiting are not unusual effects of cocaine injections.

In consequence of all this cocaine was soon almost banished as a means of local anæsthesia from our armamentarium. A substitute for it, on which I am about to report here, will indeed be welcome; I refer to the recently introduced remedy known as Eucaine.

Like cocaine, Eucaine is the methylester of a benzoylated oxypiperidincarbonic acid. Its constitution is represented by the formula:



$$C_6H_5\text{–}CO\text{–}O\text{—}C\text{—}COOCH_3$$

$$CH_2 \qquad CH_2$$

$$CH_3\text{—}C \qquad C\text{—}CH_3$$
$$CH_3\text{—} \qquad \text{—}CH_3$$

$$N\text{–}CH_3$$

The hydrochlorate of Eucaine, which is to replace the hydrochlorate of cocaine, has the following chemical constitution; $C_{19}H_{27}NO_4HCl$.

From a chemical point of view Eucaine has an advantage over cocaine in that it is not decomposed by boiling with water; cocaine under similar circumstances dividing into benzoylecgonine and methyl alcohol, and losing its efficacy as a local anæsthetic.

Eucaine, like cocaine, is used in the form of an injection. At first I employed a solution of 1:15 of sterilized water, using, according to the nature of the operation and the size of the field to be covered, from one to two syringefuls. But I soon found that higher percentages might be

employed. I then prepared a solution of 1:6½, and used that thenceforth in my experiments. Their results were entirely satisfactory.

As regards the advantages of Eucaine over cocaine, I note as follows:

1. The heart is in no way influenced by it. In fact I noticed that in very nervous patients, whose pulse had risen to 120 and 130 before the operation, the heart beats became normal and regular very soon after the injection.

2 The anæsthesia is more extensive in area and lasts longer than does that of cocaine. In some of my experiments the analgesia extended even to the muscles. In one case, where an injection was given over the first incisor, there occurred a paralysis of the ala nasi and anæsthesia of the nasal mucous membrane on the right side. The patient declared that her nose felt as if it was stopped up, but the sense of smell was not interfered with.

3. As much as 2 grams (30 graims) of Eucaine can be injected with out trouble; whilst of cocaine the similarly safe dose is only 0.01 gram ($\frac{1}{6}$ grain). Thus of a solution of 1:6½, about 15 per cent., 12 syringefuls would constitute a maximum dose. Half that quantity would, however, under favorable circumstances be sufficient to painlessly extract all the teeth from a mouth.

4. Solutions of 1:6½ in sterilized water are permanent at the ordinary temperature of the room. They remain clear without the addition of carbolic or salicylic acids and do not become flocculent as cocaine does.

5. Finally I am informed that it is intended to put Eucaine on the market at a price considerably less than that of cocaine.

When we consider the facility of application of Eucaine, the certainty of its action, and. above all, its great advantage in the absence of noxious by-effects, it is evident that it will soon become one of our most favored anæsthetic remedies.

I have known the preparation since November, 1895, and have used it exclusively. My results have been such that I have cast aside both ethyl chloride and ethyl bromide entirely.

Who among us has not experienced the excitation and vomiting that so frequently occur in operations done under the bromide of ethyl narcosis? Who among us has not seen ethyl chloride cause excessive secretion of saliva, when extractions of the second and third molars were undertaken? Who has not met cases in which the steam of chloride of ethyl was hindered by the soft parts from reaching the second, not to speak of the third molar? All these unpleasant things may be avoided by the use of Eucaine, without in any way interfering with the results that are aimed at.

I use a Pravaz hypodermic syringe and inject the solution about 1 centimenter in front of the tooth to be extracted. In this way it is rarely difficult to do a painless extraction even of the third molar. In one case, in which on account of anchylosis the syringe could not be advanced far enough—the third lower molar of the left side was to be extracted—I injected from without, in the direction of the diseased tooth. Four or five minutes after the injection the anæsthesia was so great that the extraction could be effected without pain. If, as sometimes does happen, the effect of the drug is not at once apparent, or is not sufficiently marked, it suffices to give a half, or in rare cases a full syringeful additional, and both patient and operator will be satisfied with the result. In none of

my cases did any of my patients show any disturbance of the system at large.

In a few cases there were swellings of the cheek after the injection, though the solution and the disinfection of the syringe could not be criticised. Thereafter I cleaned the mucosa thoroughly with cotton soaked in carbolic solution before making the puncture, and I have seen no more of them.

I shall now mention two cases in which I used Eucaine which are characteristic, and will enable us to judge of its great applicability in dental practice.

The first was the first one in which I used the drug. It was the extraction of the root of the left upper canine, in consequence of a bet, the condition of which was that the extraction should be done without narcosis. With Eucaine it was done painlessly and satisfactorily.

The second case was that of a theological student, who had undergone chloroform narcosis fifteen times in half a year for surgical reasons. I knew that the patient had been operated on under chloroform, but that the narcoses had been so many was purposely concealed from me. The patient had a severe toothache, the cause of which he thought was the second superior molar of the left side. though the second inferior molar of the same side was also painful. The patient could not be convinced of his error, and demanded extraction of the latter under narcosis. To this I finally consented, as the second left inferior molar was already lost. The patient was extremely timid and believed that only very large quantities of ethyl bromide could procure him absolute painlessness. He consequently resisted the ethyl bromide action to the utmost. Narcosis occurred only after the administration of 25 grams ($\frac{5}{6}$ ounce) of ethyl bromide. I then attempted to extract the tooth; but the patient awoke too early, and the tooth was fractured. In the evening the patient came back with violent pain and demanded that I extract the root. His condition was such that I could not think of another ethyl bromide narcotization. But a syringeful and a half of Eucaine sufficed. The next day the patient had become convinced that my opinion was right, and demanded the extraction of the second left superior molar. Again he was given an injection of one and a half syringefuls and again there was the same good effect. The patient assured me that he had felt nothing at all. These good results in extraction, together with similar ones in other operatives procedures, induced me to substitute Eucaine for the cocaine in my arsenical paste. Here also its action was an excellent one. But seldom were there complaints of slight pain after the introduction of arsenic with Eucaine.

Such are my experiences; and they give me the right to ask my colleagues to replace cocaine with Eucaine in all cases so as to control my experiments and to extend the usefulness of the drug.

Eucaine is a valuable enrichment of our armamentarium; and will be at least a very dangerous rival to cocaine, as soon as it is better known.

It was recently decided by Judge Smith, at the United States Circuit Court, in session at Battle Creek, Mich,, that a physician's relations to his patients are not sacred, and that he can be compelled to testify in regard to the ailments with which his patient is afflicted.

Sugar in Normal Urine,

Noorden states that minute traces of sugar are found in the urine of every healthy person, but that it is doubtful whether these traces are passed through the epithelia of the glomeruli with the aqueous portion of the urine, or whether they originate later on from destroyed epithelial nuclei or from mucin. We find in every urine the chemical descendauts of cells, especially of their nuclei, in the shape of nucleo-albumins; and A. Kossel has recently proved that carbo-hydrate can be formed by the decomposition of nucleo-albumin, or of nuclein, while we have long known that mucin contains a molecule of hydrate of carbon that is easily detachable. Then it must be admitted as possible that the traces of sugar id dormal urine have originated later from decomposition of mucin and nuclein; while Baisch, in 1894, showed that normal urine contains a substance resembling dextrin, and at least one other kind of carbo-hydrate.

The starch molecule ("polysaccharid") is split up by the diastase of saliva and pancreatic juice in several carbohydrate molecules of smaller size ("monosaccharids" and "disaccharids"), and there results amidulin, erythrodextrin, achroodexirin. isomaltose, maltose; these, on entering the walls of the intestine and portal vein are almost entirely converted into grape sugar, dextrin and maltose meeting with the same fate if they happen to be contained in the food ingested. Cane-sugar is a disaccharid, and in the intestinal canal is split up by acids, ferments, and bacteria, into its two components, fruit sugar (levulose) and grape sugar (dextrose), and then passes into the blood; only when consumed in great amounts does cane sugar enter the blood as saccharose. Fruit sugar (levulose) and milk sugar (lactose) enter the blood unchanged. The blood in the portal vein passing to the liver contains, according to the nature of the food, glycose, lactose, levulose, saccharose, and sometimes traces of dextrin and maltose. All are changed into glycogen in the liver as long as the blood current remains moderate. Muscles and the cells of many glands likewise accumulate glyeogen, and by inference from what we know of animals, we may estimate that from 300 to 400 grammes of glycogen are stored away in these structures and the liver in the human organism. If in a human being there is a gradual overfeeding with carbohydrates, the body is taxed with the problem of housing the surplus material elsewhere, and this it accomplishes by converting into fat whatever it is not able to store away in the shape of glycogen; and in this wise every 100 grammes of grape sugar leaves a residue of 39 grammes of fat. But if the surcharge of carbohydrate material is too rapid, the tissues have not time tı convert the whole into glycogen or fat and hyperglycæmia, and glycosuria results.

Noorden has found that healthy indviduals can invariably take a dose of 180 grammes of grape sugar, of 170 grammes of fruit sugar, of 150 grammes of cand sugar, of 120 grammes of milk sugar on an empty stomach in tee morning without producing glycosuria. If we want to obtain in any individual the "limit of assimilation," a large amount of carbohydrate must be given after an interval of at least two days. If glycosuria ensued after the above-mentioned dose, he regarded the "limit of assimilation" for that individual as sub-normal. Repeated experiments have shown that the limit of assimilation is different for different kinds of sugar; in healthy individuals it is reached on the average when about

200—250 grammes grape sugar, or 200 grammes of fruit sugar, or about 150—200 grammes of cane sugar, or 120 grammes of milk sugar have been taken (variations to 10 or 15 per cent. are not to be regarded as pathological). Noorden has found (1) that normally there is no limit of assimilation for starch, for, however much starch be introduced into the body, no carbohydrate will be found to enter the urine. So much time is taken up in the digestion of the starch that sudden overcrowding of the blood becomes impossible; so that, if a person passes sugar after taking starch he is probably suffering from diabetes mellitus; (2) the sugar found in the urine is invariably of the same kind as that on which the person has been overfed.

It is interesting to note that Noorden found that the limit as assmilation was almost always normal in almost all diseases of the liver, more especially in cirrhosis, in affections of the heart and lungs giving rise to dyspnœa and congestion, in leucæmia, Hodgkin's disease, pernicious anæmia, chlorosis, in fevers, diseases of muscles, including advanced atrophia muscularis, and in diseases of the nervous system, with the exception of Graves' disease, in which the limit of assimilation was, in repeated instances, actually diminished. He refers to his pupil's (Fulger) experiments on the lactosuria of puerperal women, and states that they (Fulger and Noorden) arrived at the following conclusions: (1) The limit of assimilation for lactose is depressed in puerperæ; (2) if grape sugar is administered under the same conditions, milk sugar is frequently passed, but never a trace of grape sugar. This he explains by assuming that in the puerperal condition the faculity for destroying milk sugar is diminished; therefore lactosuria is produced (1) even by those small amounts of milk sugar that are absorbed from the lacteal glands, (2) after the administration of milk sugar more readily than in other women, (3) after the administration of grape sugar, probably because, in the presence of a large amount of grape sugrr, even the small amount of lactose normally dealt with in the body is neglected by preference for grape sugar.

The Morphine Habit.

A very gloomy picture has recently been drawn by a French doctor of the increase of the morphine habit in France, and it appears from his account that the habit becomes incurable at the end of six month's indulgence. The fair sex and the medical profession are, in his opinion, the most deeply addicted to the drug. He draws an unpleasant comparison between each kind of delinquent. Women, he says, delight in declaring how they indulge in the vice, and exhibit ornamented hypodermic syringes to their friends; and he also stated that a lady of his acquainance having broken the needle of her syringe in a remote country village, wounded her skin with scissors, and thrust the stump of the needle into the wound, injecting in this manner until her new syringe arrived from Paris. Men, he states—and especially medical men in France, the bulk of male morphine injectors—take the greatest pains to hide their vice, and hence the precise number cannot be estimated. He believes, however, that doctors and persons associated with them form nearly one-half of the total of men addicted to morphine.

Amaurosis Partialis Fugax,

Amaurosis partialis fugax (scintilating acotoma). This affection is observed very frequently. The patients complain of a sudden, partial obscuration of the field of vision from which extend scintillations (often with shining zigzag rays of light) that may finally cover the entire field. Distinct vision becomes impossible. The phenomenon disappears in about one-quarter or one-half hour. It is usually followed by headache or at least by a feeling of pressure in the head. Attacks of migraine often begin in this way. Scintillating scotoma, which occurs in a great variety of ways, sometimes starts directly from the point of fixation, the fixed letters are invisible and it is only later that the visual field is attacked. In other cases it remains very circumscribed.

I have suffered from it a couple of times, in a very small portion of the extreme lower periphery of the field vision. My attention was called to the phenomenon by a certain inconvenience of vision. In other cases the scotoma is hemianoptic. In one of my patients sometimes the right, sometimes the left half of the fields of vision is affected; the subsequent headache is always situated in the opposite side of the right, above the ear; at the same time the corresponding cutaneous vessels are distended and pulsating. The upper or lower halves of the vision may also be affected. In these temporary hemianopsias, there is often a complete defect of the visual field, the scintillation being absent.

An individual who has been once attacked usually suffers again at longer or shorter intervals. In some it continues during life, but generally dinishes in frequency and intensity with advancing age. Impairment of the visual apparatus need not be apprehended. As a rule we have to deal with a central nervous phenomenon, as is shown by the hemianopsia and the almost constant bilateral occurrence. We find it often, therefore, in nervous individuals and in those who do a great deal of brain work, but it is not very rare in other individuals. Certain definite causes are sometimes found. Thus, in some it occurs after exertion on an empty stomach. In others after an abundant meal, etc. The attacks can occasionally be checked by such agents as a cup of coffee, or tea, or a glass of wine. Among medicinal agents the nervines are to be recom
the bodily and general hygienic conditions must be regulated.

As a stimulant tonic Zumo Anana (Pine Apple Digestive Wine) has been used in such cases with very satisfactory results, as it also possesses digestant properties.

State Suppression of Inebriety and Care of Inebriates.

Dr. Orpheus Everts, Superintendent of the Cincinnati Sanitarium, the well known Private Hospital for the Insane, and others suffering from disease of brain and nerves, read a paper before the Section of State Medicine at the Atlanta meeting of the American Medical Association.

The doctor, who is a veteran of the profession, exhibited good taste, as well as skill of condensation, by limiting his discourse to less than fifteen minutes, and yet saying all that was profitable to be said on the subject treated, under existing circumstances. His subject was: "State Suppression of Inebriety and Cure of Inebriates."

The ground was taken that all efforts for the suppression of inebriety

and cure of inebriates, notwithstanding the good that may have been done, have, so far, fallen short of accomplishing the desired end. This he accounted for by the fact, as claimed, that inebriety is a disease, resulting from the interaction of alcoholic poison upon defective, or unstable, neurotic, organisations, that is not, as a rule, amenable to social or moral influences, or medication of any kind; not supplemented by environmental restraint, and that such necessary restraint can be successfully applied in the treatment of inebriates, only by the State. That the State should be interested in the treatment of inebriates follows from the fact that they belong to a defective class of society, correlatable, constitutionally, with the insane, epileptic, and other neurotic persons, so impaired by disease not amenable to ordinary treatment, as to be incapable of good citizenship, and dangerous to themselves and others.

The doctor said that after many years of observation and experience in the treatment of inebriates, he thought there were two methods by which inebriety could be suppressed, and inebriates cured more successfully than by the methods already tried and found wanting. One of these methods implied absolute prohibition of the manufacture or sale of intoxicants; the other an inhibition of the inebriates procurement and ingestion of them by State authority.

Of these methods he regarded the first as so nearly impracticable, considering human nature as it is, and our political institutions as they are, as to be out of the question; while the alternative of placing inebriates under such (bearable) restraint as would ensure continued abstenance from intoxicants (the only curative process) he believed to be practicable, and free from the objectionable features of "prohibition."

To this end Doctor Everts recommended—not "asylums," "homes," or "retreats" for inebriates, recruiting stations, as usually administered, without authority to needfully restrain, and employ, where drunkards recuperate sufficiently to go out and enjoy another period of debauchery—but colonies, where all the inebriates of a given district may, voluntarily, or unvoluntarily, be domiciled, and furnished by State authority and under State administration, with not only hospital accommodation, but with varied occupations, enabling them to earn their living; if not something more, with certain regulations for parole and return to colonial life, under well defined circumstances. The paper was well received.

How to Keep Well.

We have learned that most diseases have their own peculiar cycle, their period of invasion, their period of limitation, their crisis, and their decline. We have also learned by long experience and repeated trials that these periods may be modified, though seldom abridged, and that when fully established, usually run their course; though by the proper administration of this or that; as the careful and experienced mariner avoids the rocks and shoals, and outrides the tempest, so the doctor's skill steadies the wavering pulse, allays the fitful fever, soothes the racking pain, calms the wild delirium, strengthens the weakened heart, inspires the waning hope, till the eye regains its original lustre, the pulse has lost its irritable thrill, and the silver cord is strengthened, that else would have been unloosed.

The Digestion of Starch in the Stomach.

If to a solution of starch we add a dilute acid and keep the mixture at a high temperature, the starch becomes changed into dextrin and glucose. Are the conditions under which starch is subjected in the stomach favourable to conversion in this manner?

A priori one would not expect that starch could undergo any conversion in the stomach, as the degree of acidity is so feeble and the temperature comparatively low.

From experiments on Alexis St. Martin, however, Smith concluded that starchy food was digested in the stomach independently of saliva, and Brown-Sequard, from his own experience, came to a similar conclusion. Munk and Haycraft have even described a ferment which is sometimes found in the gastric mucous membrane of the pig, and which changes starch into sugar. Brucke found that soluble starch was formed in the stomach to a large evtent, and thinks that it is due to the acidity, while the erythrodextrin formed from starch is due to the lactic acid fermentation. The saliva of dogs has only a very slight diastatic action, yet when fed on starch, dextrin and sugar is found in the stomach along with free hydrochloric acid.

On the other hand, Dalton, Kuhne, Duclaux, and Schiff deny that starchy matters are digested in the stomach. Foster states that the gastric juice *per se* has no effect on starch whatever. Bouchardat and Sandras found that starch underwent no change in the stomach of rodents. It was only in the small intestines of these animals that dextrin and glucose were formed from starch. In birds they found that starch was much more completely digested, and so in the gizzard dextrin and glucose are found. They think, however, that in the human stomach cooked starch begins to be dissolved. Laborde found that gastric juice had not the same power of converting starch as a solution of hydrochloric acid of the same degree of acidity, and thinks that the acid in the stomach was therefore lactic acid

If the reaction of the gastric contents be neutral or alkaline, achroodextrin may be formed through the continued action of the saliva. If acid, however, (and this only to a small extent,) then then the conversion which has begun is rapidly brought to a conclusion, and so erythrodextrin may be alone formed.

Von den Velden states that ptyalin acts in the stomach only in presence of weak organic acids, but not if free hydrochloric acid be present also. It has been found, however, that when starchy food is received into the stomach the secretion of hydrochloric acid takes place very early and in a not inconsiderable amount, and remains so till the food passes ont of the stomach.

Sanmetto in Uurinary Diseases.

Sanmetto is my medicine for all bladder and urinary diseases. I have used it in cases of fifteen years standing where other physicians and medicines had failed—such as catarrhs, or any irritation of either bladder, urethra or tubes running from kidney to bladder, in gleet resulting from gonorrhea or excessive drinking or any other form of irritation of the uninary organs. E. H. Jones, M. D.

Seymour, Iowa.

Treatment of Tertiary Syphilis.

Neumann holds that the principles of treatment should not be by routine, by preventive measures, or by Fournier's "chronic intermittent" method; they should follow the established rules for symptomatic therapeutics. The primary lesion should, as a rule, be treated locally. Where it is exceptionally large or hard, or gives rise to functional disturbances, it should be excised, not in the hope of obviating constitutional symptoms but according to the ordinary surgical indications for the extirpation of tumours. Preventive treatment, particularly in the form of inunctions, may be adopted in phimosis following indurative œdema of the prepuce, or to guard against stricture when the primary sore is in the urethra. General treatment should begin with the first appearance of the rash, and should be as energetic and lasting as possible: the greatest care is necessary in preventing relapses. In the symptomless period treatment in indicated only under certain special circumstances, such as before marriage or during pregnancy in a patient who has had repeated abortions or premature or stillbirths; the husband of such a patient should be treated during her pregnancy, and, if this is not effectual, later on the wife herself. The aim of all therapeutic measures should be the most perfect removal of all syphilitic symptoms, since the evidence of statistics goes to prove that it is by this means that the appearance of tertiary symptoms is best prevented. There is at present no remedial agent which absolutely precludes the onset of tertiary syphilis, but by far the greatest risk of this is run by those who have been imperfectly treated or not at all. Statistics show that only about 22 per cent. of all syphilitics develop tertiary symptoms, and that patients treated by Fournier's method are no more protected from them than those undergoing symptomatic treatment.

Illinois Central Hospital for the Insane.

I have repeatedly prescribed antikamnia for various neuroses with good effect. Recently prescribed it in a case of croupous enteritis, patient adult, highly nervous, and during continuance of paroxysms, and preceding it, is nervous and hypochondriacal, suffering intense pain. The case is one of long standing, and one where opium was objectionable, because of the tendency toward forming opium habit. However, opium has been used, but the effect of antikamnia has been more magical, more persistent, and followed by no digestive disturbance, as has been the case when opium was used.

My directions have been to use antikamnia whenever a paroxysm occurs. Have also found it invincible in protracted neuralgia.

Jacksonville, Ills., Sept., 19, 1891. FRANK P. NORBURY, M. D.

The attention of our readers is called to the advertisement of Robinson Pettet Company, which appears on page 589, of this issue.

This house is one of long standing, aud enjoys a reputation of the highest character.

The preparations referred to, we commeud specially to the notice of Practitloners.

The Second Pan-American Congress.

The Committee on organization of the Second Pan American Medical Congress has elected Dr. Manuel Carmona y Valle, President, Dr. Rafael Lavista, Vice-President, and Dr. Eduardo Liceaga, Secretary, and has announced November 16, 17, 18, 19, 1896, as the date of the meeting to be held in the City of Mexico.

The most cordial invitation is extended to the medical profession of the United States to attend and participate in the meeting.

Titles of papers to be read should be sent at the earliest practicable date to Dr. Eduardo Liceaga, Calle de San Andres num 4, Ciudad de Mexico D. F. Republica Mexicana.

The date selected is in the midst of the delightful midwinter season, when the climate of Mexico is the most attractive to the northern visitor.

The occasion should stimulate the medical profession of the United States to a most cordial reciprocation of the generous patronage accorded the Washington meeting of the Congress by our Mexican confreres.

It should be remembered that the United States is the largest, and in many regards the most important of the American countries and that as a consequence more is expected of it than of any other Occidental Nation. In no particular is this more true than in the maintenance of position in the realm of scientific medicine on the Western Hemisphere. It is, therefore, simply essential that in this Congress—the most important of all Medical Congresses, in its exclusive, yet broad, American significance—the best thought and the best work of the American profession shall be conspicuous in the proceedings.

The zeal and enthusiasm of the Mexican profession and the active interest of the Mexican Government are co-operating to make the Second Pan American Medical Congress attractive, important and memorable.

Those who contemplate attending should send their names and addresses at as early a date as possible to Dr. Charles A. L. Reed, St. Leger Place, Cincinnati, that the Committee in Mexico may be advised of the probable attendance.

WILLIAM PEPPER, *ex-officio President.*
A. M. OWEN,
A. VANDER VEER,
CHARLES A. L. REED,
ex-officio Secretary.
International Executive Committee for the United States.

Citric Acid in Gonorrhœa.

A favourable report has been made by Pellissier as to results obtained by treating gonorrhœa with solutions of citric acid. He used it because of its parasiticidal action, and because the gonococcus will not grow on an acid medium. Using a one per cent. solution injected into the anterior urethra six times a day, or an irrigation in strength of 8.1500 up to 8.1000, in both anterior and posterior urethra, he found that it caused neither pain nor irritation, and he reports fifteen cases successfully treated without complications.

The Use of Gauze Drainage.

Gauze drainage after operations for appendicitis will have to go. It does not drain, but to the contrary blocks up the discharge and irritates the peritoneum unnecessarily. Dr. Robert T. Morris, of New York, has the following to say concerning it:

When the Midulick drain first came into common use, I committed taxidermy upon a few appendicitis patients—stuffing them with gauze. In those days I was not very busy, and there was plenty of time to stop and think. I began to reason that if a yard of gauze were tucked into my own normal abdominal cavity this evening, I would not feel like meandering among the violets by the brookside and listening to the singing of the bobolink in the morning. Very few septic-appendicitis patients are physically stronger than I am.

There was complaint that appendicitis operative statistics were bad because cases were not operated upon early enough. I do not believe that we can take ten healthy policemen from their beats, stuff a yard of gauze into the abdomen of each one, and get them early enough to pull many of them through. If an army were equipped with methods for getting gauze into the abdomens of their aduersaries, the victors' eagles would soon scream.

Gauze packing in the peritoneal cavity does several things. It depresses the patient, and often keeps him in a condition of shock. It obstructs the bowel. It stimulates the peritoneum to throw out great quantities of decomposable lymph for the purpose of walling off the foreign body. It irritates the bladder and the ureter. If iodoform gauze is used, iodoform-poisoning will often supervene insidiously, and the surgeon who does not recognize the condition will wonder why the patient's pulse is rapid and weak. It takes very little iodoform indeed to produce a fatal effect in some sensitive young patients. It hurts cruelly to remove gauze packing from adherent peritoneum which is rudely pulled and injured afresh. Bowel loops and omentum are left in a snarl when adherent gauze is removed. The large opening through which gauze packing is removed becomes the seat of post-operative ventral hernia, for the simple reason that the transversalis and internal oblique muscles have retreated so far from the margins of the incision that an imperfect abdominal wall remains, and the surgeon has nothing to work with if he wishes to repair such a hernial opening later.

There is one thing, however, that gauze packing does not do: it does not drain well. The reason why it does not drain well is because lymph fills its meshes and coagulates there. We cannot say that gauze packing is necessary, because there are many of us who are engaged in appendicitis work who do not use it. In my own practice a simple, soft, little drainage-wick, surrounded by gutta percha tissue to prevent adhesion to peritoneum, is all-sufficient. The use of this unirritating and useful drain allows the transversalis and internal oblique muscles to be accurately sutured, with the exception of an opening which is too small for a ventral hernia afterward.

The Esquimaux gives the doctor his fee as soon as he comes. If the patient recovers he keeps it; otherwise he returns it to the family.

Neurasthenia Treatment.

Dr. George Herschell of London gives the following summary of treatment for Neurasthenia:

1. The removal of the cause.
2. The treatment of the effects produced by that cause.

The Removal of the Cause.

If we allow the cause which produces the neurasthenic condition to remain operative, we can never cure the patient. We may for a time neutralize its effects, and temporarily improve the condition of the patient, but we can do no real good. An example or two will make this plain.

Let us take a very common sequence of events.

1. Defective teeth causing imperfect assimilation of food.

2. Imperfect assimilation of food giving rise to tissue starvation and general neurasthenia.

It is obvious that in a case of this nature we may peptonize and otherwise predigest all the food which we give to the patient, and we can thus nourish him for a time, but we are not curing him, we are only establishing a *modus vivendi* for the disease.

Again, we have a case in which neurasthenia is caused by the absorption of toxins from a chronically dilated stomach. We can do no real good by any drug which we may give until we have removed this condition. By bromides and other sedatives we can minimize the action of the toxins upon the nervous system, but we cannot cure the patient unless we can break through the morbid chain of events.

As another example commonly met with in practice, we may have chronic auto-intoxication from retained fæcal matter in the intestine. In such a case we cannot commence to treat the neurasthenia with the slightest prospect of success until after we have thoroughly cleared out the contents of the large intestine.

We may, therefore, lay down for our guidance certain broad rules to be pursued whenever we take in hand a case of neurasthenia. They are the following:—

1. Make quite certain that excess of tea, tobacco, or alcohol is not at the bottom of the condition. If so, reconstruct the dietary.

2. Search for and eliminate the chance of chronic lead or arsenic poisoning.

3. Investigate the possibility of syphilis being present.

4. If it is evident that the neurasthenia symptoms are of a lithæmic nature, treat this condition.

5. If the stomach is evidently dilated, and there is food retention, wash it out sufficiently often to keep it free from decomposing products.

6. If there is fæcal retention wash out the bowels.

7. Remedy any faulty hygienic condition under which the patient may be living. Ensure adequate exercise and recreation in the fresh air, limitation of the amount of mental and bodily work, and absence of worry. Take care that the diet is varied and contains an excess of albuminoids.

Having now removed the cause as well as we may, we must try and cure the neurasthenia.

1. We can do a great deal to help the patient by means of DRUGS.

Bromides, valerianates, zinc, musk, silver, gold, cicuta virosa, cimicifuga, cypripedium, ignatia, ergot, belladonna, coca, and many others, have each there sphere of usefulness. But they require to be given according to precise indications, and it would take many pages to give even a very brief *resume* of their several uses. We must each learn by individual experience how to use the tools which science and art have placed at our disposal. No teaching can supply the place of personal observation and study; and the success obtained by medical men in the treatment of functional nerve troubles more than any other class of diseases will vary in direct ratio with the precision with which they can select the drug which is required in any given case. In neurasthenia, we shall not infrequently find that several medicinal agents may require to be used in succession before the patient is restored to health. Each drug will accomplish something, and carry the patient on a distinct step towards recovery. As the time comes when each drug ceases to do good—it is a remarkable fact that in neurasthenia drugs usually seem only to do good for a little while—we replace it by another one, for which the indications are now present, which will carry on the good work a little further.

2. Of all the agents at our command for removing the neurasthenic condition, ELECTRICITY is of the greatest value. It will restore tone to the nervous system quicker than anything else. But it must be applied by an expert. It is not sufficient to tell a patient to "go and buy a battery and try electricity." A great deal of the discredit which formerly fell upon the use of electricity as a therapeutic measure was due to the fact that as the medical profession had not been taught anything about the subject in their hospital studies, the practice of it fell into the hands of uneducated charlatans, who not only used unsuitable kinds of electricity in an unskilful manner, but promised cures in perfectly hopeless cases, where obviously it could be of no good. As an example of this, I may cite the case of a patient of mine who suffers from a rapidly growing abdominal tumour, apparently behind the stomach. She has just placed herself under the care of a self-styled medical electrician, who has definitely promised to cure her. To do this he is applying daily the current from the primary coil of an ordinary faradic apparatus! Of course the certain failure of this measure will help to throw unmerited contempt upon the legitimate use of galvanism in appropriate cases.

It will often happen that when you advise a patient to submit to a course of galvanism, he will say that he has already tried it without any benefit. On investigating the subject further you will probably find that he has been treating himself by holding the handles of a faradic machine, or has had it applied by a nurse, or, perhaps, his own wife. Probably he has worn a belt. *Apropos* of such patients Beard and Rockwell appositely remark, "As well might a sailor who had had his broken arm badly set by a comrade before the mast say *that he had tried surgery*"! There is no magic in electricity that, *however* applied, it will do good; but, in proper dose, and administered in a suitable manner, it is of the greatest value in the treatment of neurasthenia. The method which I invariably use is that known as "central-galvanization," and has been described by me in detail in the chapter devoted to the treatment of gastric neurasthenia in my book on indigestion.

We promise as our hearts dictate—we perform as our fears advise.

Municipal Medicine.

At the recent annual meeting of the Kansas State Medical Society, Dr. J. L. Gilbert, of Topeka, read a paper on "Municipal Medicine." In the paper the Doctor called the attention of the members to the modern methods in the investigation and quarantine of some of the infectious diseases, especially diphtheria. He advocated the establishment of municipal hygienic laboratories, where these investigations might be carried out. He pointed out to the physicians the necessity of being very careful in differentiating the various types of pharyngitis and the importance of arriving at a diagnosis early. He took the ground that it was quite as essential to make the differentiation early and positively as to know the condition of any particular organ. He held that a microscopical examination was not only essential in making the diagnosis, but was a great aid in the treatment of diphtheria patients.

He advised isolation and quarantine in nearly all infectious diseases; and claimed that the quarantine should be absolute and should be maintained until the board of health was satisfied that no further danger of infection existed. He maintained that diphtheria existed as long as the bacillus of diphtheria could be recognized and that the board of health should not remove the quarantine until it was satisfied as to that point. He thought diphtheria cases should be reported to the local board of health who, in conjunction with the physician, should then positively determine whether a quarantine was necessary, and if necessary should not be removed until the board was satisfied that no further danger of infection existed. The argument in regard to diphtheria was applied to all hygienic work.

He called attention to the ignorance of the people and the boards o health in regard to water supplies, food supplies, and the conditions o the school rooms, halls and churches.

He thought these questions could not be dealt with successfully until a higher education of the public was attained. He thought the teaching in the public schools should be more in the line of the present teaching in regard to health. He advocates the establishment in the higher schools of learning, of chairs in bacteriology, where the practical side of these questions could be taught. He thought it was just essential that our youth should be taught these questions of vital import to health as some of the theories in mathematics, in science or religion. He thought the public was anxious and willing to learn these lessons, but that the physicians must take the lead. He urged the profession to make greater strides in preventive medicine—the medicine of to-day.

Chronic Inflammation of the Urethra Complicated by Old Stricture.

Arthur Aulad, M. D,, M. B., B. Ch., B. A. O., B. A., Rathmines, Befoe Road, Tooting, London, S. W. England, says:

"I have very great pleasure in testifying to the extreme efficacy of Sanmetto. The only case in which I have used it was what I would call a test case, viz.: one of inflammation of urethra of long standing, complicated by old stricture. I gave it in drachm doses three times a day, and in four days the patient was completely relieved."

The Value of Cycling.

Aceording to Jenning, the French Academy of Medicine has approved of moderate cycling in mild heart lesions, and there does not seem to be a dissentient voice. Dr. Herchell has called attention to its danger when practised without judgement, and he and others have quoted several instances of sudden death so resulting. Moderate, graduated cycling is free from danger as a pastime to the heart, and may be of the greatest use to it when diseased; but on the other hand, the cycle is no talisman to prevent a man with a weak or diseased heart suffering from his folly, when he happens to make upon it an effort that would have caused a fatal result under any circumstances. The cases mentioned by Dr. Hammond as being suitable for cycling are simple, degenerated conditions of the muscular fibres in dilated hearts, either with or without compensatory hypertrophy, and in slight valvular affections. Sir J. B. Richardson points out that enfeebled or worn out arteries are a source of greater danger than feebleness of the heart. Venous enlargement, he adds, seems to be benefited by cycling.

The Scientific Treatment of Typhoid Fever.

There are those physicians who believe that the only legitimate treatment of typhoid fever consists in holding the temperature within certain limits by internal antipyretics, antipyrine, acetanilide, phenacatin and antikamnia, all having their enthusiastic advocates, but while they certainly have the effect of holding the temperature within certain limits by their paralyzing action upon the nerve centers which govern or control the body temperature, they do not accomplish any good for the patient, and may be the means of doing him great injury. In fact, the internal use of antipyretics in the treatment of typhoid fever, is a typical example of what some have termed pernicious therapy. If the temperature reaches an alarming degree and it becomes imperative that it be reduced, such effect should not be accomplished by the use of internal antipyretics, but rather by what is properly termed, cutaneous elimination. The effect of a high degree of heat either moist or dry, applied to the temples, or to the chest of the typhoid fever patient, will have the reliable effect of reducing pyresis within the limits of safety, accomplishing such effect quickly and in a perfectly safe manner. Just how the effect is accomplished would be rather difficult of explanation from a strictly scientific standpoint, but clinical evidence that such effect is produced, is so abundant, as to place the question beyond doubt. Therefore we fail to comprehend why any physician should resort to the use of artificial internal antipyretics, when nature has supplied one better, far safer and far more complete than has been, or ever will be produced by the chemist. Hot water continuously applied to the forehead, by means of flannel cloths wrung out in hot water, which are changed with frequency sufficient to maintain a very high degree of heat, has the invariable effect of reducing fever heat. It is unnecessary to go to the extreme measure of placing the patient in a cold bath to reduce typhoid pyresis; as in view of the fact that the ultimate result can be accomplished by much more simple means and without exposing the patient to the many possible injurious effects of a cold bath. If anyone doubts the efficacy of a high de-

gree of moist or dry heat as an agent to reduce typhoid pyresis, he has only to give it a fair trial to become thoroughly convinced; the result will be so decisive and gratifying that he will never thereafter administer a single grain of internal antipyretic agents, or expose the patient to a cold bath.—*New York State Medical Reporter.*

Treatment of Gonorrhœa with Argonin.

By Dr. A. Lewin.

An ideal therapeutic agent for the treatment of gonorrhœa should possess the following characteristics: it should not only destroy the gonococci but at the same time it should alleviate the irritation of the mucous membranes, without giving rise of itself to the slightest symptoms of irritation. None of the substances hitherto employed in the treatment of this disease fuifils the whole of the above requirements

The introduction of Argonin marks a decided advance; the remedy destroys gonococci very rapaidly without producing any irritation. Argonin should be carefully dissolved by warming it with water. Fifteen grams of Argonin contains an amount of silver equivalent to that in one gram of silver nitrate. Meyer has already reported on the antibacterial properties of Argonin in the Zeitschrift fur Hygiene, 1895; its clinical application was introduced by Jadassohn (Archiv fur Dermatologie und Syphilis, 1895). We have employed the substance in the concentration of 3:200 and inject ten ccm. of this solution five times daily*). The injected fluid was retained five minutes in the urethra. By this method we treated twelve cases of gonorrhœa as early as possible in the course of the infection. Of twelve cases observed, in nine the gonococci permanently disappeared in from two to six days; one case afforded especial interest in that gonococci were readily detected after four weeks' treatment with *injectio composita*, but permanently disappeared after two days' treatment with Argonin. In one of the other cases gonococci were still found after ten days' application of Argonin; in another the gonococci reappeared as soon as the Argonin treatment was interrupted; a third case was removed from our observation after fourteen days. Not a single complaint of irritation was heard from any of the patients. The secretion persisting after discontinuance of Argonin treatment was quickly overcome by the use of zinc. sulphocarbol., &c.

We are inclined to agree thoroughly with Jadassohn that Argonin possesses pre-eminent gonococci-destroying qualities, and does not occasion irritation. It is thereford specially adapted for the early treatment of gonorrhœa. Further observations are desirable to ascertain its usefulness in chronic cases.

Dr. Charles A. L. Reed, of Cincinnati, has been selected by the European Committee on organization of the International Periodical Congress of Gynæcology and Obstetrics, as Honorary President of the meeting of that body to be held in the city of Geneva, Switzerland the first week in September of this year.

*Of late Jadassohn has employed 2½-3 per cent. solultion of Argonin.

Local Action of Salol.

For internal use the value of salol has long been recognised, owing partly to clinical results, and partly to the knowledge that within the intestine it breaks up intro salicylic acid and phenol, both valuable antiseptics. In acid media, such as gastric juice, for instance, it is insoluble and inactive, and for this reason it is extensively used for the coating of pills, which are intended for intestinal use only. and which might do damage bo dissolving in the stomach. In a paper by Colombini (Rif. Med., Sept., 1895), its local action on ulcers and inflamed surface is pointed out—salol undergoes decomposition not only in alkaline media, but in the presence of living tissues—the liberated antiseptics, in their nascent condition, appear to exercise no irritating properties, but under their influence unhealthy surfaces quickly heal. The acids are supposed to be slowly evolved and taken up by the tissue almost as quickly as they are formed, and hence no concentrated effect is produced. The constant, but slow, production of new quantities of an antiseptic is just what is wanted in the local treatment of certain skin diseases. Colombini recommends that salol be dissolved in liquid vaseline and applied directly to the damaged skin surfaces.

Hot Springs Ark., Dec. 12th, 1895.

Zumo Pharmacal Co., St. Louis, Mo.:

Gentlemen :—I have used your Zumo Anana to some extent and always with gratifying results. I used it in a cause that could not tolerate Iodide Potash with any combination until I combined Zumo. C. H., age 33, bar-tender, consulted me on Oct. 8, '95. Found patient with a well developed secondary syphilis, prescribed Oleate Mercury 20 per cent., 1 dr. rubbed in at night. Succus Alterans 3 ozs. Kali Iodi 1 oz. Sig.—two teaspoonsful after each meal. On third day patient had all the symptoms of Iodism, reduced the Iodide Pot. to 15 gr. per day, but still had the bad symptoms. At the suggestion of a friend, I combined the Zumo. The bad symptoms at once disappeared. I increased the Iodide Pot. to a 50 per cent. sol., giving 90 gr, Iodide Pot. a day with no bad results. The patient is about ready to go home, being in fine condition.

H. C. Wallace, M. D.

According to Robertson Ptyalin is the ferment in the salivary secretion which converts starch granules into achroodextrin, maltose, and glucose. Through the continued action of this ferment maltose is slowly split up into glucose. The amylolytic action of saliva is destroyed by high temperatures, as by boiling ; while at low temperatures conversion becomes slow, and ceases entirely at 0° C. At the normal blood-heat (38° C.) starch is converted by ptyalin very rapidly in an alkaline solution. It is said that small quantities of hydrochloric acid suspend and rapidly kill the ferment. On the other hand, it is affirmed that its action goes on in neutral as well as in slightly acid solutions. In strongly alkaline or acid solutions its action very soon ceases.

The question as to the activity of the salivary ferment in acid solutions is of great importance as regards the digestion of starch in the stomach. The ingestion of food into the stomach leads to the secretion of gastric juice. If then hydrochloric acid be poured out early in diges-

tion, the alkalinity of the saliva swallowed will be soon neutralized, and the activity of the ptylin must soon come to an end in the acid medium.

It is almost certain, however, that the hydrochloric acid secreted in the stomach combines at once with the proteids during the earlier stages of digestion, and so, no free acid remaining, saliva still continues its converting action on starch. This condition lasts for a period varying from three-quarters to two hours; when, the proteids having combined with as much hydrochloric acid as they require, free hydrochloric acid appears in the gastric secretion. The conversion of starch in the stomach then ceases, as ptyalin is destroyed by the acids of the gastric juice in full digestion.

Antiseptics.

In a most exhaustive review of the subject, W. Poliakoff considers the important question, whether an essential difference exists between bacterial and non-bacterial suppuration. He concludes that the characteristics usually offered of bacterial suppuration are erroneous, and occur in the non-bacterial form, viz., that (1) it manifests a disposition to progress; (2) the pus consists of multinucleated pus corpuscles; (3) the pus contains peptone. It is probable that constant and long continued excretion of toxins into the tissues, as occur in nature, produces the reaction of the tissues which is known as suppuration. The cause of stitch abscesses observed in patients after aseptic operations has been discussed by Kauenstein before the German Surgical Congress. His 216 observations on different sutures and ligatures tend to confirm the suspicion that catgut is a frequent source of infection in wounds. Since 1888 Kocher has used silk only in his goitre operations, and has had 85 per cent. absolute primary healings.

PORTLAND, OREG., Aug. 28, 1895.

ZUMO PHARMACAL CO., St. Louis, Mo.:

Gentlemen:—Your letter and proposition just received, and in reply desire to state that at the time your agent left the sample at my office I was, myself, just convalescing from a long spell of malarial fever and nervous Prostration, caused by overwork. (An unusual disease these hard times).

After carefully reading the circular, I concluded that I would try it in my own case, which I did. I must say it is just the remedy to use in convalescence, and where there is nervous weakness, and where a general invigorating process is needed. I intend prescribing it for my people whenever needed, and am confident that I will obtain satisfactory results.

My practice now is almost exclusively office practice, as I give most of my attention to chronic diseases (male and female), and am convinced that your Zumo-Anana (Pine Apple Digestive Wine) will fill a long felt want.

I trust that the other members of the profession will soon learn to value this remedy as I am sure they will obtain satisfactory results from its use.

Assuring you that I appreciate, very much, the sample sent, I am,

Yours sincerely, J. LEWIS KESSLER.

Symptoms of Pneumothorax.

Habershon (The Hospital). As a rule the onset is accompanied by sudden and severe symptoms. When, previously, the disease of the affected lung has not been extensive it is easy to conceive that the sudden collapse of a comparatively healthy lung will be associated with severe shock and with extreme mechanical interference with the circulation and respiratory power. The case is different when pneumothorax supervenes through the perforation of the pleura of a lung already useless from extensive disease. In such cases the onset cannot always be definitely marked,unless the patient has been under close observation. At least, from the history that a patient gives it is not always possible to define the onset. On the other hand, if one lung is already seriously diseased and pneumothorax supervenes in the more healthy lung, death may be sudden, or the patient may live for a few hours only. Pneumothorax has been given as one of the causes of sudden death. I believe that this has been mentioned by Fagge, and when pneumothorax has occurred in the comparatively healthy lung, the other being extensively diseased, it is certainly cited by many authorities as one of the causes of sudden death. Further, tne symptoms may be modified by the presence or absence of extravasation from the contents of a cavity in the lung inty the pleural cavity. This has special reference to the amount of pain.

Frequently, and indeed, in most cases, pneumothorax is actually in duced by a fit of violent coughing, or by a sudden muscular strain, such as exertion or straining at stool. The patient is seized with faintness and collapse, the radial pulse becomes small and frequent, or even absent, the lips blue, the extremities livid and cold, and there is urgent dyspnœa, and more or less pain in the affected side. In many cases the symptoms of collapse are followed by a rise of temperature, but in fatal cases the temperature may fall until death. A prominent symptom of the onset in many tubercular cases is a severe pain of a stabbing or lancinating character in the affected side. This pain is not always a marked symptom, and when present is due to irritation of the pleura and subsequent pleurisy. It is not uncommon for the patient to complain of a sensation of something in the chest having given way or ruptured. The respiratory movements are always accelerated, and in many cases there is a sense of constriction of the chest associated with the dyspnœa.

The temperature, as has been said, sometimes falls in cases where the collapse is followed by increasing and fatal exhaustion. The notes are shown of a case in which the temperature fell continuously in the course of the forty-eight hours preceding death from 99.4 degrees at the time of the onset of the symptoms to 96.4 degrees on the day of death. More often, however, a considerable rise of temperature will be observed. In a few cases where there has previously been pus or serous effusion in the pleural cavity this fluid has been discharged from the mouth through one of the bronchial tubes.

The subsequent course of the symptoms and the prognosis depends upon the cause of the pneumothorax, or, in other words, upon the condition of the lungs and pleura previous to the accident of the perforation. No less than 90 per cent. of all the cases of pneumothorax occurring are said to be tubercular.

Annual Meeting of the N. C. Medical Society.

The Forty-third Annual Meeting of the N. C. Medical Society convened in Winston Salem on the 12th, 13th and 14th inclusive, Dr. R. L. Payne in the chair.

The Convention was formerly opened by Dr. Gray. A very happy address of welcome was delivered by Hon. Clement Manly, which was appropriately responded to by Dr. Geo. W. Long, of Alamance.

THE PRESIDENT'S MESSAGE

was a very able document. The message congratulated the society on the triumphs of the year. Caustic reference was made to illegal practitioners and the necessity of eliminating them from the State. The State Board of Health was declared a monument to the medical societies neglect, the fault being inadequate law for its support. Proprietary medicines came in for severe stricture.

Dr. Payne is now a resident of Norfolk, Va., having removed there from Lexington during the past year.

The session of the second day of the society was of special interest to members because of the election of several important officers.

The vacancies to be filled were three on the board of Medical Examiners. There were a number of candidates for the positions and it was believed by several members that considerable electioneering had been done by some aspirants to society honors. Electioneering is not countenanced by the profession, and a resolution was adopted before the election was entered into declaring that in future such action should not be tolerated. Electioneering was declared unprofessional and inimical to the best interest of the society.

When nominations were called for the following names were presented: J. Howell Way, of Waynesville; I. W. Faison, of Charlotte; T. E. Anderson, of Statesville; R. H. Whitehead, of Chapel Hill; Albert Anderson, Dr. D. T. Tayloe, of Washington; Dr. J. B. Powell, of Wake Forest.

Each candidate had good followings and it required a number of ballots before the fortunate contestants were declared elected.

Drs. T. E. Anderson, of Statesville; R. H. Whitehead, of Chapel Hill, and David T. Tayloe, of Washington, were finally elected members of the Board of Medical Examiners.

The program as previously published was fully carried out. During the meeting of the society a great number of able papers on different subjects were read.

The society decided to hold the next annual meeting at Morehead on the third Tuesday in May, 1897.

The following are the officers for the ensuing year:

President—Dr. P. L. Murphy, of Morganton.

Vice-Presidents—Drs. J. C. Walton, of Reidsville; A. A. Kent, of Lenoir; M. R. Adams, of Statesville; R. L. Long, of Hamilton.

Secretary—R. D. Jewett, of Wilmington.

Treasurer—M. P. Perry, of Macon.

The following is the list of those who successfully passed the Board:

Hubert Hamlin and E. M. Griffin. Winston; J. F. Swain, Cool Springs; E. N. Heard, John S. Osburn, E. J. Pearson, E. R. Morris and

E. B. Glenn, Asheville; Chas. S. Bagwell, Chapel Hill; E. M. Hutchens, Kapps' Mill; H. B. Hoyle, Jonesboro; C. S. McLaughlin, Burwell; Frank B. Wilson, Gastonia; W. G. Garrison, Bessemer; W. Mitchell, Louistown; J. B. Mathews, Durham; A. P. Davis, Daisy; J. M. Sheppard, Campbell; J. J. Leak, Francisco; A. B. Boyer, Yadkin College; S. E. Koonce, Newton; T. T. Young, Smithfield; J. Fering, Elizabeth City; Geo. W. Williams. Raleigh; Wm. R. Mapp, Raleigh; Geo. W. Norman, Reidsville; W. P, Horton, North Wilkesboro; S. P. Burke, Dellaplane; T. C. Blackburn, Boone; J. C. Gilbert, Hope Mill; W. E. Hemphill, Archers; W. J. Mc Anally, Madison; H. C. Horton, Wakefield; Thos. T. Watkins, Walnut Cove; Jno. S. Massey, Monroe; Guy S. Kirby, Lenoir; D. M. Moser, Conover; Jas. Young, Mooresville; C. J. Parlerr, Boone; H C. Upchurch, Raleigh: W. D. Crocker, Lucoma; E. B. Lattimore, Shelby; L. L. Ardrey, Charlotte; L. P. Aaron, Mt. Olive; W, T. Griggs, Harbinger; Banks Withers, Davidson; M. E. Bennett, Palm; I. H. Haizlip, Salem Chapel; E. W. Lister, Elizabeth City; C. S. Tate, Ramseur; L. E. Ricks, Pantego; S. S. Royster, Mooresboro; E. M. Brown, Washington; E. S. Browning, Pleasant Grove; E. H. McLeod, Pleasant Grove; C. M. McCricker, Clyde; B. B. Hauser, Yadkinville; S. B. Medford, Clyde; J. D. Lister, Elizabeth City; Miss Joy Harris, Summerfield.

Hygiene versus Drugs.

C. F. Ulrich, A. M., M. D., read before the section on State Medicine at the American Medical Association, a paper with the above title.

This paper depicts in a graphic style the inconsiderate and deleterious consumption of drugs, such as "home remedies," patent medicines and hourly doses prescribed by inexperienced or complaisant doctors; for people will be dosed; if one doctor refuses to do it, another one will. The injury done by this indiscriminate consumption of drugs is apparent to every one who has the knowledge and takes the time to investigate the subject. This part of the topic is discussed at length in the paper, in plain, intelligible language, that may be understood by the layman as well as the physician.

How shall this absurd practice be done away with and its baleful consequences be avoided? The answer is: Hygiene. This term embodies everything relating to the preservation of health by natural means without poisoning the system with drugs. Nature, in cases where there is no hereditary taint, will work out her ends successfully, if not interferred with. The "*vis medicatrix naturæ*" is the best doctor, if permitted to have her way. If you eat pure food, containing the necessary material for making tissue, drink pure water, free from albuminoids and disease germs; if you touch lightly those articles of food that are only used for tickling the palate or stimulating the failing appetite; if you avoid as much as possible those stimulating beverages that go to the brain, and do all manner of mischief, you will have barred the necessity of years of medication and, perhaps, avoid a premature death. But, if bacilli creep into the system in spite of every precaution, the natural emunctories: the bowels, the kidneys, the skin, will carry them off provided these organs are kept in good condition by proper diet, by frequent ablutions, and other common sense habits. The laws of health are continually violated by trespassing upon the rights of the stomach, the great work shop of the

body. If children were taught by parents and in the schools what is good for them to eat and drink, and what is injurious; how to take care of the skin, the kidneys and the bowels; what to put into the stomach, and what to keep out of it, nine-tenths of the consumptives of medicines would be avoided, and doctor bills would become a very light burden.

This part of the paper was very fully discussed and well handled, but owing to our limited space this brief and meagre abstract must suffice.

Congenital Syphilis of the Liver in Infants.

K. Hochsinger (Lancet) has observed 172 cases of inherited syphilis at the Vienna Institution for Sick Children, between the years 1883 to 1894. Of these children 148 were in their first year, and 46 of the 148 showed a decided enlargement of the liver when examined at the bedside. Of these 46 children 30 were cured by antisyphilitic treatment, 7 were lost sight of, and 9 died, a *post-mortem* examination being made in 5 cases. It is probable that the 7 cases lost sight of were fatal cases, so that 16 out of the 46 really died. Thirty-four of the 46 cases were not more than six months old. In 1 of the 5 necropsies tuberculous caseation was found in the liver; this is the first published case of a child having both congenital syphilis and congenital tubercle, and it was described at the Dermatological Congress in 1894 at Breslau. Gubler was probably wrong when he supposed that the great mortality in infants with congenital syphilis was due to the hepatic affection, but he was probably right in supposing that hardly any children are born dead owing to syphilis, unless a morbid change in the liver is recognisable. Clinically in most of Hochsinger's cases the spleen felt enlarged as well as the liver. The enlargement of the liver varied in degree in different cases; the organ felt smooth and hard. In none of the cases was ascites or jaundice observed. In all the cases, excepting a few, a syphilitic rash was present. In several cases there was syphilitic bone disease. Nasal trouble was present in every case. In most cases the size of the liver soon diminished under mercurial treatment; only in the worst cases was there no reduction in size after as much as four weeks' treatment. Probably when no decrease in the size of the liver can be obtained, there is some non-syphilitic cause present as well as syphilis, usually fatty infiltration. As a rule, the cutaneous and osseous manifestations of congenital syphilis disappear before the enlargement of the liver does; but the splenic enlargement is more resistant to antisyphilitic treatment than the hepatic enlargement. Hochsinger believes that in suckling infants with enlargement of the liver, in whom the manifestations of congenital syphilis were undeniable, jaundice has always been absent; further, that when jaundice was present in infants with enlargement of the liver, undoubted manifestations of syphilis have never been observed. The ages of the four children on whom a necropsy was made (the partly tuberculous case not included) were respectively 11 weeks, 4 months, 7 weeks, 5 months. As in cases of this nature previously described, a more or less diffuse affection of the hepatic parenchyma was observed, consisting in the presence of inflammatory cells amongst the individual hepatic cells of the acini. Inflammatory collections of cells were also seen about the small interacinous branches of the hepatic artery and portal vein, and especial attention is directed to the fact that in the arterial branches the intima was thickened.

Acetonuria and Coma.

According to Hirschfeld acetone exists under normal conditions in the urine of a healthy person, but only when carbohydrates are excluded from the diet, excretion of acetone then reaching from 20 to 70 c. gr. daily, being small in amount at first, gradually increasing, and reaching the stationary point. In rich proteid diet the acetonuria is less than in moderate proteid diet, but whether the needs of nutrition are met by a liberal supply of fat or not, and during periods of fasting, the amount of actetone discharged remains uninfluenced, and therefore its excretion is not dependent on the decomposition of proteid bodies. When acetone has made its appearance as a result of the suppression of carbohydrates in the diet, it suffices to add from 50 to 100 grammes of such substances to make the acetonuria disappear within two to four days.

Among carbohydrates which exert the greatest influence upon acetonuria are starch, cane sugar, grape sugar, milk sugar, and mannite. Glycerine appears to be very active in this direction, whereas alcohol has no such influence, nor have salicylate of soda, or antipyrin. In addition to physiological and diabetic acetonuria, it manifests itself also in the course of affections of the stomach, and in fever, as well as in patients suffering from cancer. In all these conditions, however, the etiology of the acetonuria is the same, as it is due to the limitation of carbohydrates in the diet, for as a matter of fact Hirschfeld found that acetonuria supervening in the course of pnuemonia. typhus, scarlatina, gout, &c., decreases or disappears entirely if from 60 to 90 grammes of grape sugar, for instance, be administered daily.

We may further refer to Rosenfeld's observations on acetonuria and its treatment. Along with Friedlander, Ephraim, Kobrak, and Honigmann he conducted experiments on physiological acetonuria and found that on an ordinary mixed diet the healthy individual excretes minute quantities of acetone; in the fasting states the amount of acetone is increased; yet, although with moderate quantities of proteid food acetonuria is likewise increased, with large quantities of proteid food it is not markedly increased; and further, marked acetonuria resulting from exclusive meat diet or fasting can be made to disappear after one or two carbohydrate meals. Acetonuria, he says, appears to be a function of moderate albuminous decomposition. Carbohydrate metabolism, as well as an increase beyond a certain point of albuminous decomposition, lessens acetonuria. Regarding diabetic acetonuria he finds that it is earlier in appearance, and more pronounced than in health, and aceto-acetic acid is also present, the latter being rarely present in health. Acetonuria attending the use of a mixed diet is a different matter. If a diabetic excrete acetone in large amount when abundant carbohydrate is being supplied, it is pathological and peculiar to himself, the carbyhydrate metabolism being defective or wanting, and hence the acetonuria. There are two important clinical facts—(1) That diabetic coma hardly ever occurs without acetonuria; and (2) that after the commencement of the proteid diet acetonuria on the one hand, and coma on the other, may occur; thus the least possible excretion of acetone should be aimed at in these cases. In severe cases feeding with as much proteid food as will produce 30 to 35 grammes of N. may be difficult, and the acetonuria increase, and thus there only remains the last resource of feeding with the

smallest amount of albuminous food and with as rich as possible a carbohydrate supply, such as lœculose, cane-sugar, or with glycerine. He has twice succeeded in overcoming commencing coma by forced carbohydrate feeding.

The Heart in Its Relation to Pregnancy.

Hanfield Jones, in his recent series of Harvein Lectures, has the following to say in respect to the above subject:

The question is often brought before us: Is marriage to be permitted when the woman is the subject of chronic heart disease? Regarding this Macdonald says: "Chronic heart disease ought to be looked upon as a grave contra-indication of marriage, more especially if it assumes the form of anything approaching to severe mitral stenosis or serious aortic incompetence. In such cases we onght, if consulted, to dissuade from marriage." On this point the author does not feel inclined to adopt Macdonald's opinion. If we read carefully over the long lists of cases of heart mischief published from time to time, we shall notice that many of the women had borne several children without any complication, though undoubted cardiac mischief had existed from the time of their first conception. Provided a valvular lesion is well compensated, and the muscular tissue of the heart can be judged to be sound and provided also that the patient is a young woman in whom processes of repair may reasonably be expeeted to go on at a healthy rate, there would be no just reason for forbidding her to marry. In every case it would be well, if the patient has not been under medical observation previously, to advise her to remain under medical supervision for the space of six months, or even a year, that an opinion might be formed whether the disease was quiescent and vascular equilibrium well established, or whether, on the other hand, yielding of the ventricular walls and dilitation of the cavities were slowly advancing. He quite agrees with Macdonald that we ought not to give our sanction to marriage, if, in connection with chronic heart disease, there are any serious symptoms of cardiac disturbance present, such as attacks of dyspnœa, breathlessness, palpitation on exertion, hemoptysis, etc.; and this injunction ought to be the more imperative the younger the patient is and the more recent the acute disorder which has given rise to the lesion.

The Uses of Strawberries.

According to Dr. Withering:—"They are grateful, cooling, sub-acid, juicy, and have a delightful smell. They promote prespiration, and dissolve the tartarous encrustations upon the teeth. Persons afflicted with the gout or stone have found great relief from using them largely; and Hoffman says he has known consumptive patients cured by them."

Withering's four-volume work on Botany is well worthy of a place in every medical man's library, for, apart from its special object, it is replete with remarks on medical and dietetic subjects. Its author, as all know, was a distinguished physician of wide learning. It was of him, when on his death-bed, that it was plaintively said that the flower of physic was withering.

Pneumonotomy.

Quincke has tabulated and analysed 54 cases of pulmonary abscess treated by surgical operation. These cases, 17 of which were treated by the author, are arranged in three groups: the first of acute abscesses, both simple and gangrenous; the second of chronic abscess and putrid bronchiectasis; and the last of putrid suppuration caused by a foreign body in the lung. In a large proportion of the 54 cases (83 per cent.) the inferior lobe of the lung was the seat of the disease. Of the total number of patients, 20 recovered and 20 died; in the remaining 14 cases, the surgical treatment either failed altogether or gave but imperfect results. The author makes out from his collection of records that whilst the mortality from operative interference is almost equal in acute and in chronic cases, the percentage of complete recoveries is higher by about 45 in the former than in the latter. It is concluded that the operative treatment of acute pulmonary abscess will be attended with complete success in two of every three cases. The prognosis of such treatment in cases of chronic, and especially putrid, abscess is much less favourable. The author believes, however, that in future better results may be attained by earlier intervention. Surgical treatment, he holds, is indicated in cases of acute abscess which show no tendency to spontaneous healing. The prospects of an operation in such cases are better than those of an expectant treatment. If such suggestion be generally followed chronic pulmonary abscess with secondary bronchiectasis will, it is thought, less frequently be observed. Notwithstanding the less favourable prospects of operation in cases of chronic pulmonary abscess and sacculated bronchiectasis, such treatment is here recommended for these morbid conditions with the view of protecting against acute secondary inflammation the portion of lung still remaining sound. In cases of multiple bronchiectasis, although *a priori* a good result could hardly be expected from surgical operation, still, the author thinks, improvement may be brought about by such treatment. As such a condition constantly threatens fresh and fatal mischief, an operation, though not clearly indicated, need not be regarded as unjustifiable. In discussing the diagnosis of pulmonary abscess the author regards as important indications the purulent nature of the expectoration and the presence in the discharge of minute portions of broken down lung tissue. The quantity of expectorated fluid, he points out, affords no sure indication of the size of the cavity. In considering the diagnosis of the seat of a supposed pulmonary abscess, he states that when on general grounds the existence of such a cavity is assumed, and a localised area of dulness exists without any distinct local symptoms of suppuration, this area should be elected as the object of the surgical attack. If not the precise situation of the disease it will in most instances serve as a guide to the purulent collection. Exploratory aspiration is objected to as a measure of diagnosis. It will not show whether the cavity be a large or a small one, and is a very probable source of danger in cases in which the affected portion of lung is not adherent to the wall of the chest. The author, in concluding his paper, describes his method of treating pulmonary abscesses, which consists in resection of portions of one or more ribs, free exposure of the parietal layer of pleura, and in making with the thermocautery a free opening into the cavity after he has assured himself that adhesions exist between the lung and parietal

pleura, or by a prolonged application of caustic has artificially established such adhesions. Pleural adhesions at the seat of operations he regards as an imperative condition in pneumonotomy. If there be any doubt as to the existence of such adhesions the surgeon must act upon the assumption that they are absent.

Micro-organisms and Digestions.

Nencki during the past ten years has been investigating the question as to what part is played by micro-organisms in digestion, (British Medical Journal). He has come to the conclusion that they possess the property of changing the insoluble forms of carbohydrates and albumen into a soluble form. As regards the question whether the action of micro-organisms is necessary for the normal process of digestion, Nencki endeavours to prove that it is not. The grounds upon which he bases this conclusion are as follows: (1) The acid of the stomach destroys the majority of the micro-organisms; only a small number escape this fate, and get with the food into the intestinal tract. In the small intestines their action is confined to the decomposition of the carbohydrates and the formation of lactic and succinic acid, alcohols, etc. The decomposition of albumens and the formation of the aromatic bodies, such as phenol, cresol, indol, scatol, and of the different acids under their influence, takes place only in the large intestine. Experience shows—the author mentions one case of his own observation and one of Zanowsky of Warsaw—that one can live very long without the large intestine, if there is an artificial anus near the ileo-cæcal valve. (2) Newborn guinea-pigs were put into a closed bell and kept on a sterilised milk diet, the respiratory air being also sterilised. After a time the animals were killed, and all the organs were found to be quite normal. Microscopical investigations of the intestinal tract failed to show the presence of any micro-organisms. The time will come, says the author, when we shall be able to remove micro-organisms entirely from our food, but at present we can only say that they are only hurtful, an not in any way beneficial.

A Method of Preventing Thirst after Celiotomy, with a Study of the Urine.

Before the Ohio State Medical Society on May 27th Dr. W. H. Humiston, of Cleveland, read a paper entitled, "A Method of Preventing Thirst after Celiotomy, with a Study of the Urine."

The patient is given the usual preparation for celiotomy: i. e., diet, baths, cathartics, etc. For three days prior to the operation, the patient is required to drink a quantity of hot water not exceeding a pint one hour before each meal and on retiring—thus drinking about two quarts of water during each twenty-four hours—the last pint being taken three hours before the time appointed for operation. Perticularly, during the day previous to the operation while the patient is restricted to a limited amount of liquid nourishment, and the bowels are being unloaded, should the water be given.

Thus is restored to the system the large loss of fluid occasioned by the free catharsis, with the satisfaction of having the patient pass the

ordeal of the first thirty-six hours succeeding the operation in comparative comfort, with no thirst, a moist tongue, an active renal function, and a full strong pulse.

Also catheterization is rarely required.

A tabulation of twenty-four successive cases in which a careful daily record of the urine was taken, gives the following results:

The average total quantity of urine voided during the first twenty-four hours after admission to the hospital, was twenty-nine fluid ounces—the average total solids amounting to 477 grains. During the twenty-fours preceeding the operation thirty ounces were passed containing 491 grains of total solids. The average quantity of urine voided during the first twenty-four hours succeeding the opearation was thirty-one and one half ounces, containing an average of 972 grains of total solids, and during the second twenty-four hours twenty-five ounces were passed with 680 grains.

The doctor believes that the average total quantity of urine voided during the first twenty-four hours after admission is above that of the ordinary gynecologic case, but is explained by the fact that at the first consultation he advises the use of at least an ordinary amount of water together with the administration of the ordinary diuretics—especially the potash salts and digitalis.

Attention was called to the enormous increase in the amount of the total solids eliminated during the first twenty-four hours after the operation over that of any preceeding day.

"Practical Influences from Clinical Observations in Lateral Curvature of the Spine."

A. B. Judsen, M. D., American Orthopedic Association, Buffalo, N. Y., May 19th, 1896.

1. Deformity lessens in recumbency and suspension, therefore these attitudes should be practiced as much as possible through the growing period.

2. Deformity increases with the intervention of fatigue, therefore physical and mental exertion should be reduced to the minimum.

3. The chest is expanded in suspension, therefore suspension should be practiced as much as possible, (a) to oppose the contraction accompanying rotation, and (b) to improve the respiration and thus sustain the general health, and give tone to the muscular system, whose failure to hold the spine erect under its natural burden is one of the causes of lateral curvature.

A brace is powerless to reduce rotary lateral curvature. As the ribs are chiefly attached to the processes instead of the bodies of the vertebral column, the first effect of a brace pressing on the ribs is to increase rotation and curvature, and contraction of the chest. Persevering suspension opposes the contraction accompanying rotation and curvature, and in time promotes symmetry by over-filling the chest by forced development of its normal contents.

Treatment on the rational grounds provided by clinical observation prevents increase of deformity, and in favorable cases improves the condition.

The Vaginal Douche Before Labor.

The Boston Medical and Surgical Journal Editorially discusses this important subject in a very practical and interesting manner.

The question of puerperal self infection, of the possibility of a puerperal sepsis taking place as the result of the presence of pathogenic bacteria in the normal or diseased vagina, and not introduced from without, is a subject of great practical importance, and has recently been the subject of careful study in European clinics. As a result, the common routine practice of giving an ante-partum antiseptic douche has been discontinued by certain men of large experience, after careful consideration of its advantages and disadvantages. The question of self-infection practically limits itself to the vaginal secretion, as micro-organisms present in the tubes and ovaries are beyond the reach of the antiseptic procedures of the accoucheur.

Is the average parturient woman, then, liable to infection by bacteria present in the vagina, and if so, what preventive measures are to be taken? In answer to this question, as pointed out by Jewett in an interesting article in the American Gynecological and Obstetrical Journal, the conflicting opinions have in the main, been divided into three:

(1) That the vaginal secretion may infect whether healthy or diseased.

(2) That only pathological secretions can infect.

(3) That the vaginal bacteria, either in health or disease, have practically no part in the etiology of childbed fever.

Ahlfed is an example of those who believe that pathogenic organisms are always present in the vagina, and that every lying-in woman is liable to infect herself. Others have found pathogenic bacteria only in pathological secretions.

Doderlein in 1892, as a result of observations on nearly two hundred cases in a Leipsic clinic, found that pathogenic bacteria did not live in healthy vaginal mucus, but that in diseased conditions there was liability to infection.

Konig, in 1895, published the conclusion as a result of experiments at a Leipsic clinic, that the streptococcus is killed by healthy mucus within two or three days after its introduction into the vagina. Clinically the genital canal may be considered clean if from forty-eight to seventy-two hours have elapsed since the last examination. He is supported by other observers in the view that the vaginal secretion is not an important agent in puerperal infection.

Jewett (*loc. cit.*) has collected statistics of 22,467 cases from large maternity clinics in this country and in Germany, where the ante-partum antiseptic douche is a routine practice, and finds the mortality from sepsis to be one tenth of one per cent. In the small number of non-douched cases (2,764) the mortality, is one-and-a-half tenths of one per cent. a difference too small to prove anything for auto-infection.

These figures, however, do not support the opponents of the douche in any claim that it is harmful, the mortality being too small. The most that they can indicate is that it is unnecessary. The fact that without the douche an equally low mortality has been obtained conclusively shows, however, that the chief factor in the prevention of sepsis is the avoidance of contact infection.

More conclusive, as Jewett remarks, are the results of observations in parallel series of cases at the same clinic, such as those of Zweifel and Leopold. Zweifel found in a large number of births that better results were attained without vaginal douches than with them, and considers the natural secretion a better protection against infection than any antiseptic. Leopold's statistics show that of 4,584 cases treated at the Dresden clinic, from April, 1886 to 1889, with the ante-partum douches, 80.7, were free from fever. From April, 1889 to 1893, when the douche was omitted, out of 4,088 cases, 92 per cent. were free from fever. The douche was omitted again in 1893; and from that time till June, 1894, 1,200 cases were treated, the percentage of fever-free cases falling to 83.

If we accept these figures, which come from a reliable source, and are carefully collated, we must, as Jewett says, reject the routine douche as an unreliable and even injurious practice.

In his own practice Jewett has for several years used no ante-partum douche except for cause. In healthy cases, even where instruments or the hand have to be introduced into the uterus, if, as goes without saying, rigid disinfection of hands, instruments and external genitals is carried out, the ante-partum douche is unnecessary. Gonorrhea in child-bed, acute or subacute, is generally followed by puerperal infection, and in these cases antiseptic measures are to be adopted.

The presence of a yellowish, greenish or fetid discharge is, however, an indication of the presence of virulent bacteria, and indicate prophylactic disinfection, not merely the perfunctory antiseptic douche, but a thorough scrubbing with soap and hot water, followed by antiseptic irrigation, as carefully performed as in ordinary surgical and gynecological practice. An asepsis should be aimed at which is no less strict than is practised in major surgical procedures. When time permits, vicious secretions are but corrected by a mild but prolonged antiseptic douche once daily or oftener, for several days previous to labor.

Chronic Gout.

It was Garrod who in 1846 first pointed out that uric acid is invariably present in the blood of gouty persons. The deleterious effect of this materia morbi are most strikingly shown in the chronic form of the disease, when uratic deposits occur in the joints and other fibrous structures. These deposits gradually thicken until chalky masses result which give rise to more or less serious deformity of the joints and even to anchylosis. There is a form of gout, however, the so-called irregular in which the effects of the morbific material are chiefly expended on the non-articular tissues, leading to endarteris, gouty kidney, valvular lesions, bronchitis, etc. But no matter in what manner and to what extent the influence of the poison manifests itself the aim of any effective treatment must be to favor its elimination from the organism. It is well known that some alkaline salts, have a solvent action on uric acid, but this is not pronounced and often unreliable. The only substance known to exert a specific action in the uric acid diathesis is piperazine, but it has been found that by combining the latter with tartaric acid a compound results which is even more potent. Lycetol, as this combination is termed, has now been employed sufficiently to demonstrate that it is a most valuable resource in the treatment of gout, including the chronic form which is

usually so obstinate to all kinds of medication. To insure the efficiency of any remedy in this class of cases, however, it must be given for some time, and Lycetol has the advantages of being pleasant to take and of not producing any disturbance of the gastro-intestinal tract. Under its influence an increased elimination of uric acid occurs in the urine, the pains are promptly relieved, and the other disturbances gradually subside. Unless ankylosis or extensive changes in the articular structures have taken place, the absorption of uratic deposits under continued use of the remedy may lead to marked improvement in the functions of the impaired joints. Lycetol shoul be administered in 5 to 6 grain doses three times daily, in an abundant quantity of water and during its administration due attention should be paid to the diet and general hygiene of the patient.

Serious Complications of Suppuration of the Middle Ear.

Dr. Max Thorner, of Cincinnati, O., read a paper before the Ohio State Medical Society upon this subject, of which the following is a brief summary;

The last ten years have witnessed a most remarkable development in the study of ear diseases. Not alone the aurists were interested in this unprecedented progress, but equally so the general practitioners. This is due to the fact that we have learned to appreciate the seriousness of purulent processes in the middle ear, their bearing upon the general health of the individual, and their great danger to life.

This latter point has most prominently been brought to light by numerous investigations, made in the large hospitals of different countries. It has been conclusively shown that formerly numberless patients died with such diagnoses as "meningitis, typhoid fever, brain fever, marasmus (infantile and senile), eclampsia in brain abscess," etc., where, as they were in reality, the victims of purulent processes in the middle ear, which had not been recognized. Wherever autopsies were made in large hospitals upon all the dead bodies, they have uniformly demonstrated the great percentage of ear diseases as a direct or indirect cause of death. Among other facts, this one has been established with certainty that at least one-third, and probably more, of all brain abscesses are of otitic origin.

Among the more serious complications of purulent middle ear disease must first be mentioned caries and necrosis of the temporal bone; then cholesteatoma, this most intractable epithelial accumulation which invades the most inaccessible recesses of the tympanic cavity, the mastoid antrum, and enters even the cranial cavity. That partial or complete deafness, paralysis of the facial nerve, and disturbances of the equilibrium may accompany or follow these occurrences, is well known.

More serious, however, are the cerebral complications which, unfortunately, terminate so often fatally, although of late enormous advances have been made in the operative treatment of such cases, leading in some instances to a cure. In fact the prognosis is not any longer so absolutely unfavorable as it used to be a few years ago; and while the percentage of recoveries is in these cases not by any means a large one, yet every year has more and more perfected the technique of operative procedures, that in the future we may look for a much larger number of recoveries in cases hitherto considered unavoidably fatal. These complications are purulent pachymeningitis externa (usually described as extradural abscess) and

interna, purulent leptomeningitis, and cerebral abscess. Furthermore, phlebitis of the sinuses, especially of the lateral sinus; but also of the superior and inferior sinus cavernosus, as well as of the vena jugularis, and finally pyemia and septecemia. Moreover thrombosis of the carotid interna, and fatal hemorrhage from the carotid and from the vena jugularis have been observed; and it is also a well established fact that localised and general tuberculosis may develop from a purulent otitis media in individuals heretofore free of any tubercular infection

Dr. Thorner, who has had unusual opportunities for observing cases of this kind, being the aurist to the large Cincinnati Hospital, and clinical professor of otology and laryngology in the Cincinnati College of Medicine and Surgery, concludes his practical paper with the report of a number of interesting cases, among which there is one of an abscess due to ear disease in the tempero-sphenoidal lobe, of enormous size; and another case where cerebral symptoms of a threatening character had developed in the course of a chronic purulent middle ear disease of fourteen years standing. The latter case recovered completely after a so-called radical mastoid operation. He says, however, that while modern otology has progressed enormously, so much indeed as to often save the life of the patient through an operation, it would be much more to the credit of the profession, if these cases would become less and less necessary; and this goal could ultimately be reached if the general practitioner would become convinced of the importance of all ear troubles, and of the necessity of an early and appropriate treatment of such cases.

Serum Therapy.

Schæfer (Hospital Gazette) has made considerable research into the subject of serum therapy, and has come to the following general results, which we reproduce for the benefit of those interested in the subject, to whom they may be of use:—(1) Tuberculosis. Treated with serum obtained from refractory animals by Ricet and Hericourt, without definite results up to the present time. (2) Rabies. Immunization by vaccination gives better results than serum treatment. (3) Pneumonia. Serum from immunized rabbits is difficult to obtain, consequently this treatment has not been used to any great extent. The subject is promising enough to deserve further investigation. (4) Enteric fever. Good results have not been obtained in practice, though laboratory experiments are very promising. This may be due to mixed infections, or to length of time between the penetration of the poison and the treatment. (5) Typhus. Legrain, during an epidemic in Algeria, used the serum from patients who had suffered from this disease with good results. (6) Cholera. Cholera in man is different from that in animals. Nothing definite is known as yet, but Behring announces that he has a curative serum. His researches are not yet published. (7) Syphilis. Sometimes good results have been effected with the serum from dogs and lambs. (8) Streptococcus injection. The serum from animals immunized by vaccination has been employed with good effect in anginal erysipelas, and puerperal. (9) Cancer. There are no satisfactory results thus far. (10) Tetanus. This affection is very hard to cure in animals, and no conclusive results have been obtained in man. The serum, however, acts as a prophylactic agent

against tetanus. (11) Diphtheria. Here it is that the serum treatment has scored its most remarkable triumph. The few accidents that have occurred may be over looked when we consider the wonderful success that has been attained. Serum treatment has also proved useful in snake-bites, and it may have a brilliant future.

Mercury in Tubercular Disease.

A French physician has recently published some valuable observations upon the use of mercury in the treatment of patients suffering from tubercular diseases. He chiefly used the drug in the form of hypodermic injections of corrosive sublimate, and carried out the treatment for many months with regularity. The results which he describes are very remarkable, because they consisted, for example, of the gradual drying up and disappearance of tubercular glands, and of chronic diseases of the nose and eyes; and in at least one instance, in which a patient with a tubercular family history was evidently suffering from incipient consumption, this method of treatment was followed by speedy improvement, and finally by apparent cure. The treatment will doubtless receive a very careful and extensive trial in this country, although it is at first sight difficult to understand or explain its *rationale*. Mercury is known to be a resolvent of certain forms of new growth, notably those due to a specific cause; but it is, at the same time, so depressing when given in larger or long continued doses, that it has probably never before been widely employed in the treatment of tubercular diseases. It is a curious illustration of the influence of fashion in therapeutics that, after being terribly abused, and partly falling into discredit for half a century, Mercury is now being largely used again, and with the greatest benefit, in many widely different diseases.

Chronic Heart Disease.

In the "Practitioner," Eccles writes an article on this subject. He believes the rationale of the treatment of certain chronic diseases of the heart by a combination of rest, massage, assisted and resisted exercise, followed by outdoor walking carefully graduated, is based upon—

1. The rest afforded to the overstrained or enfeebled heart by the adoption of the recumbent position for a time.

2. The aid given to the circulation by the mechanical centripetal pressure exercised on the limbs and trunks by massage.

3. The more rapid oxygenation induced by the acceleration of the circulation, and the diminution of peripheral resistance by the same means.

4. The improvement in general nutrition, the elimination of waste products, and the increased metabolism induced by the passive and active exercises in and out of doors.

5. The careful preparation and selection of suitable food, coupled with the aid to digestion afforded by abdominal massage and exercises acting directly on the walls of the abdomen, and exercising pressure on its contents.

6. The substitution of regular, graduated, assisted and resisted movements for the spasmodic and ill-regulated exercise taken by patients suffering from cardiac functional disturbance, with or without organic lesion.

The Doctrine of Undeveloped Herpes.

It has been unfortunate for herpes as with many other diseases of the skin, that it has received its definition and description from external appearances rather than from any recognition of its real nature. It is regarded as essential to the conception of herpes that it should be a vesicular disease. Its real definition ought to be. as was long ago suggested, a local neuritis which is sometimes attended by vesication over the area of the nerve affected. Probably if we could know the truth, the number of cases in which vesications do not appear, is much larger than that in which they are present. The vesication cases may be reasonably supposed to be only the more severe type of the malady. It is very desirable that we should recognise clearly that the nervous system is liable to well localised forms of peripheral neuritis, which may be attended in some cases only by a little heat, tingling and soreness, and in others by the formation of grouped vesicles over the end-organs, or even of gangrene of the affected portions of skin. The vesicular cases, although relatively severe, are not the worst type, for, as is well known, there is a form of herpes in which, instead of a vesication, the portion of skin involved passes at once into gangrene.

As regards cases of "undeveloped herpes," it is probable that almost the whole of them pass without recognition. The patient complains of pain or soreness over one-half of the scalp. He is examined and nothing is found; and as there is no material constitutional disturbance the case is dismissed as one of neuralgia or of rheumatic pain, and as it passes away in the course of a few days, nothing more is thought of it. Such cases of abortive herpes are not only very common, but may affect the most various parts, such as the tongue, palate, throat, and any of the parts of the skin ordinarily affected by more typical herpes. The cases are to be recognised by their being definitely confined to one side, and often to the region of some known nerve. The patient will sometimes assist the diagnosis by distinctly stating that he can feel with the hand, although there is no perceptible redness and nothing that any one else can detect, a number of little points in the skin, which are not only very tender but slightly hard. The doctrine itself receives strong support from the recognition of half-way cases.

Mouth Hygiene.

Dr. P. Ritter says the mouth is the starting point and breeding place of germs. He has frequently seen workmen and workwomen lose their places on account of the want of incisor teeth or foul breath. Continuous toothache frequently led steady men to the brandy bottle for the relief of pain. On the basis of many years' experience, he held the following to be demanded: The appointment of experienced dentists to examine the mouths of all school children at stated intervals, the parents to be informed of the result of the examination, and left to have the treatment required carried out privately or through institutions; the appointment of dentists for the poor; delivery of addresses in the public schools on the importance of the masticatory apparatus and the toilet of the mouth, and the dissemination of printed instructions on the toilet of the mouth to the poor population.

Narcotic Poisoning.

Dr. G. A. Gibson calls attention to the treatment of the effects of narcotic poisons by using strychnine to avert the paralysing action of such drugs on the medullary centres. Narcotic drugs in lethal doses cause death by paralysing the respiratory centre. In the cases of narcotic poisoning that have come under Dr. Gibson's notice during the last three years strychnine has been used hypodermically when there was any irregularity or interruption of the breathing that appeared to threaten a failure of the respiratory centre. The effect of the drug is immediately shown by the increased rate, more regular rhythm, and the greater depth of the respirations, and even in cases in which the breathing has ceased it began again after the administration of strychnine.

In the treatment of poisoning by narcotics, says Dr. Gibson, two things should be studiously avoided: 1. Making the patient walk, and flogging him to keep him awake. Such treatment has a tendency to exhaust the vital powers. 2. The use of alcoholic stimulants, which aid the action of narcotics.

The patient should be kept in the horizontal position, the respiration is to be carefully watched, and should there be the least sign of irregularity, or shallowness, or inequality in the breathing, gr. 1-150 or 1-50, according to the age of the patient, of sulphate of strichnine should be given subcutaneously, and may be repeated at intervals of an hour two or three times. If, notwithstanding this, respiration becomes very feeble, or ceases entirely, artificial respiration must be begun promptly. If the circulation threatens to fail in consequence of the poison affecting the motor mechanism, or of spasm of the arterioles caused by deficient oxygenation of the blood, it should receive prompt attention.

Strychnine may be used as a stimulant to the motor centres of the heart, and may be aided by the use of ammonia or ether. If artificial respiration has been thoroughly performed there should be no spasm of the arterioles; but should there be any, nitrate of amyl must be used. Strychnine may be used also in cases of threatened failure of the respiratory centre caused by the general anæsthesia.

Transmission of Tubercle.

Jackh has investigated the question whether the sexual glands or their secretions contain virulent tubercle bacilli. He used the testicles and the contents of the seminal vesicles, as well as the ovaries of tuberculous patients who had died either of chronic pulmonary tuberculosis or of general miliary tuberculosis. Portions of the sexual organs or of the semen were introduced into the abdomen of guinea pigs and rabbits. Of 5 cases in which portions of testicle or of semen were injected, positive results were obtained thrice with the semen and once with the testicular substance. All the rabbits remained healthy. Of three injections with ovary one gave a positive result. Examination of the young of tuberculous female guinea pigs gave only one positive result. It appears, therefore, that the semen may contain virulent tubercle bacilli, and that transmission of tubercle from mother to child is not the general rule.

Injuries to the Spine.

Mr. Page (The Hospital) discusses some points with regard to fraeture dislocation of the spine, more especially in connection with the condition of the reflexes as a diagnostic sign, and as an indication for treatment. He takes it as an accepted fact that the cord is injured in fracture-dislocation either by displacement of vertebræ, transient or abiding, or by the bend to which it has been exposed in over-bending of the column. The indications of grave injury are that the patient is paralysed both as to motion and sensation in the parts below from the moment of the accident, and the level of the lesion is diagnosed by observing carefully the area of anæsthesia and the paralysed muscles. The condition of the reflexes is also of great importance. All seem to agree now that in complete transverse division of the cord the deep reflexes are instantly and permanently abolished; but opinions vary as to the state of the superficial reflexes persisted, but Thorburn is of opinion that this is due to some part of the cord not having been completely divided. In nineteen cases of his own, both deep and superficial reflexes were absolutely lost. He sums up: (1) Shock is not the cause of early loss of reflexes in spinal injury; (2) when the lesion causes complete paralysis and anæsthesia the deep reflexes are always lost; (3) when motor or sensory power, or both, return in even a slight degree, these reflexes also return; (4) when no such recovery occurs the deep reflexes remain absent for periods of practically indefinite duration; (5) when the lesion does not cause complete paralysis and anæsthesia, the deep reflexes remain in either a normal or an exaggerated form; (6) but if the motor and sensory symptoms afterwards become complete, such reflexes disappear; (7) the superficial reflexes do not conform absolutely to these rules. In nearly all cases, both of complete and partial lesions, these disappear and remain absent, the "plantar reflex" only existing.

The Chemistry of the Poison of Diphtheria.

Dr. Martin has made a preliminary report of his investigations on this subject. It appears to us that Dr. Martin's work is very suggestive, and a further report in confirmation will be awaited with interest. He has ascertained that the antitoxin, when injected by itself, in no way interferes with the nutrition of the animal, the temperature remaining normal and the weight increasing steadily. When injected along with the ferment toxine it prevents any marked rise of temperature, allows the weight to rise, and if given in sufficient quantities prevents degenerative changes of the nerves and cardiac muscle, although, if the quantity of antitoxin be not sufficient, some slight degeneration of nerves is noticeable. When injected along with the albumose, which by itself causes marked fever with first a rise and then a fall of temperature, the febrile reaction is greatly modified. The temperature varies much less than when the albumose is given alone and rapidly returns to the mormal. As regards alteration in weight—an important indication of the state of nutrition—the albumose alone appears somewhat to interfere with natural increase, though it seldom determines any diminution, but when it is mixed with antitoxin the weight of the animal steadily and rapidly increases. Albumose alone produces degeneration of both nerves and muscles, and its exhibition is

frequently followed by paralysis; but when antitoxin is given along with it these conditions do not make their appearance. Dr. Martin is continuing his investigations. Two important points brought out by his recent experiments are: (1) that antitoxin, if properly prepared, is harmless when tested on animals; and (2) that in the case of patients suffering from severe diphtheria it is necessary to give much larger doses than in ordinary cases (4000 immunisation units) in order to neutralise the action of ferment toxines and albumoses.

The New X Rays.

The benefits of this new method of photography to medicine and surgery is yielding results of increasing usefulness and interest. In the latter, its sphere of application is now fairly well defined. It is necessary, for example, that there should be some marked alteration in the bony structures, or some foreign and solid body present in the muscular tissue, in order that the photograph may be really valuable. For instance, in a case of severe fracture the photograph will show the precise direction of the division in the bone, whether there are more than two fragments, and their exact relation to each other and to the surrounding tissues—points, of course, which are of immense importance in assisting the surgeon to bring the broken ends into apposition, and thus enable the patient to make the most speedy and complete recovery. In the case of bullets, or of such foreign bodies as glass or steel, the process will expose the exact position and surroundings of the metallic mass; and there perhaps, so far as Surgery itself is concerned, the chief advantages of the new photography to surgeons will be found. In Medicine, however, there is ground for believing that the discovery will have wider results. For example, the photograph shows enlargements of the joint, or of the bones, which are characteristic of certain diseases, and which in many cases cannot be felt—a fact which has been a constant difficulty in their correct diagnosis. The field of usefulness afforded by photography, therefore, in these cases require no explanation. In shadows recently taken of gouty and rheumatic patients, the enlargement of the cartilages and the outgrouth of the joints have been most plainly disclosed; and in one well-marked case a streaky appearance in the bones was apparent, which was almost certainly due to the deposit of the lime salts in the tissue, which is known to occur in gout. An interesting point has also been proved which it is well to remember. Some who disapproves of Nature's methods of repair have argued that in some forms of gout—those in which, for example, the fingers are greatly thickened by deposit arounds the joints—improvement would be effected by measures designed to obtain the absorption of the uric acid. The tell-tale photograph has shown in a typical case of this sort that the bone seemed to be largely affected—a cavity having been formed and filled up with uric acid, thus repairing the injury which the tissue had sustained, although at the same time it caused an outward appearance of deformity. If, in this case, the deposit had been absorbed and removed, the cavity formed by disease would have remained unfilled, and a useful hand would have been rendered useless. As a means of diagnosis, therefore, between extreme cases of rheumatic and gouty deposits and other growths around the joints, the New Photography will find a large and most valuable field of usefulness.

Gauze as Drainage in Abdominal and Pelvic Work.

Milo B. Ward, M. D., (transactions of the Kansas State Medical Society, May 15, '96.) Human life so frequently depends upon the tying of a ligature, the use of one more suture, the perfection of an operation in every minute detail, that the subject of peritoneal drainage, which is, perhaps, the most vital of all questions connected with the always grave procedure of opening the peritoneum, should never become too trite to demand careful consideration, even though much has already been written on this subject, and every phrase of the question thoroughly discussed.

It is idle to say that drainage is needed only when the work has been carelessly done. However perfect the technique may be, it is still a fact known to every operator, that there are cases whose recovery depends entirely on the drainage employed after the surgical toilet is make. The only question for consideration, then, is: What kind of drainage shall be used in a given case? It is so frequently necessary in choosing the material for drainage to provide means of controlling hemorrhage, thus filling two important functions at the same time, that the problem is at once solved whenever we have suitable method to meet the dual requirements.

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It is impossible to lay down any rule to govern all alike. This statement holds good in the use or non use of drainage, for some operators use drainage in almost every case, and others seldom if ever use it.

The object of this brief paper is merely to urge the importance of the thorough use of gauze, in a large veriety of complications, as the material meeting the most indications and tending to save lives that would, I think, be sacrificed if other methods of drainage should be employed. My experience in the use of gauze has been so pleasing, in a large number of cases presenting the gravest complications, that I cannot refrain from recommending with great emphasis this important feature in abdominal and pelvic work.

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It is not may intention to deprecate in the least the usefulness of other forms of drainage too numerous to mention, and with which all are familiar, neither would I be understood as urging the use of gauze drainage to the extent of making a hobby of this practice, because there are a number of reasons why gauze should not be employed unless its use is absolutely demanded. The most potent objection to this kind of drainage, is, the large opening necessary through which to remove the drainage material after it has performed its proper function. Another objection to its use is the pain, sometimes suffering, caused by removing the gauze, and in some cases necessitating the use of an anæstethic. These objections, however, apply only to cases where the gauze has been introduced through the abdominal parietes, because the removal of gauze from the vaginal opening does not usually cause suffering. Frequently it is necessary to employ lavage subsequently to the operation, where the field is primarily septic. In this class of cases the gauze drainage will be found the most useful, because it leaves plenty of opening to get the fluids to the septic area.

Much has been recently said relative to the poisonous tendency of iodoform gauze when used as drainage, but I have never experienced the

least untoward symptom, even when used in large quantities. Perhaps there is a difference in the kind of gauze used. My method has been to use the Johnson and Johnson moist gauze, as it is furnished by this firm in glass jars. However, if there is the least doubt of absorbing enough of the iodoform to poison the patient, the iodoform gauze may be used in the form of a sack to come in contact with the peritoneum, and the carbolated or borates used for the filling.

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In operations in the peritoneum through the vaginal route, it is very essential that a free opening should be made, thus enabling a generous amount of gauze to be used, without packing it too tightly.

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The most natural interrogation, is: What character of cases demand gauze as drainage? My answer is, that almost all seriously complicated conditions of the pelvic and abdominal peritoneum, and especially, when the intestines are involved, and also in all cases where the peritoneum is opened through the vagina. There are no objections to the use of rubber or glass tubes, but I have never found it necessary to employ anything in connection with the gauze. Where this kind of drainage is used for the purpose of controlling oozing, the result of separating adhesions, it is my custom to introduce silk-worm gut sutures, and remove the gauze in twenty or twenty-four hours, and then tie the sutures, thus securing primary udion of the incision. This plan may be carried out in nearly all cases of sepsis, by tying a part of the sutures and introducing a smaller piece of gauze for continuous drainage.

Diabetes Mellites.

Dr. C. F. Wahrer, of Ft. Madison, Iowa, read before the State Medical Society of Iowa, April 15th, 1896, a paper with this title. He said:

The treatment of Diabetes Mellites to this date has been one of the most disappointing of all to the profession; all the more because of the ignorance of its pathology, unless it be due to a known traumatism, and hence a lack of knowing how the drugs used, such as ergot, opiates, arsenic, bromides, nervines, and the interdiction of starchy and sugary foods, can act on an unknown pathological factor.

The strange part is the radical form the treatment in most cases assumed, especially the strictness of the diet prescribed, causing in nearly all instances, especially in the very young, destructive metabolism, a starvation in fact, on account of withholding just what the patient craves, and forcing soja bread, gluten biscuits and nitrogenous food upon them, a procedure warranted only in the old and philosophical temperaments, who would get along with anything equally well.

The best authorities, such as Cantani, Pavy, Schnee, Saundsby, Purdy, and all clinical authors, recite the same tale of disappointment and death; yet they advise us to diet and drug, just as most of us do, and lose our patients all the sooner for it. It is advised that we employ good sense, where we are so much in the dark as to the pathology and etiology. Be less radical, and treat what we can see; the thirst with drinks. plain and acidulated; relieve the constipation with mildest methods. Give only such drugs as agree, and let our patients eat what they will, rather than starve them.

The treatment resolves itself into a matter of humanity, rather than harsh measures of dieting and drugging, since all such means have proved fruitless, and, if beneficial, only for a short period. This course is especially recommended in the young, who usuall die soon, and treatment is of but little use. Why sugar is manufactured in this disease in excess, and why it is poison to the economy in greater quantities than 3 per cent. still a fact unknown to us.

We are to remember the mistakes of our forefathers, of starving fevers and withholding water, and rank the radient treatment of diabetes with them. Let us above all things be humane to our patients and not starve them.

A Department of Health, or a Bureau; Which?

A paper on the above subject, by Dr. S. S. Herrick, of San Francisco, was read before the Section on State Medicine at the Atlanta meeting of the American Medical Association.

The author assumed that there is a general demand for a permanent national health organization. Four different plans were suggested: 1. A National Board of Health. 2. A Department. 3. A Bureau. 4. The continuance of the present administration by the Marine Hospital Service. The first has been tried and was involved in controversies, which destroyed it. Its revival would be impolitic. The second is the scheme proposed by the American Medical Association, and at present seems to be the favorite among the medical profession at large.

The chief objections to a Department of Health are: It would put the national health service in politics. Cabinet officers are appointed for partizan services, and their patronage is bestowed on the same ground. The Health Service would be a part of the National Political Machine, and there would be no stability in its *personnel* or its policy. 2. The cost of a department would be unnecessarily great, and it would be increased to satisfy the demands of a horde of hungry patriots.

In 1885 the writer of the paper, being impressed with the need of a National Health Service, and at the same time warned by the failure of the National Board of Health, conceived the idea of a Bureau of Health, modeled on the plan of the Bureau of Education, which has done excellent work and been highly appreciated. This project was approved by the American Public Health Association, and in 1886 a bill for the creation of such a Bureau was introduced into Congress. The writer still believes this plan the best, for the following reasons:

1. The Commissioner of health, like the Commissioner of Education, need not, and ought not, to be a politician, and would hold office under successive administrations. Thus there would be stability in the service, both in *personnel* and in policy, and there is a certainty of better work than could be expected under a system of using the department to pay political debts.

2. The cost would be immeasurably less, for it is contemplated to use, as far as practicable, officers detailed from the medical corps of the army, navy and marine hospital service, such as are known to be best qualified for the special duties required.

If called upon to choose between a Department of Health and the present administration of the Marine Hospital Service, the writer would

prefer the latter, as certain to cost much less money, with a strong probability of doing better work; but he adheres to the plan which he proposed in 1885 as the best.

The Rapid Cure of Rotary-Lateral Curvature of the Spine,

At the tenth annual meeting of the American Orthopedic Association held at Buffalo, N. Y., May 19th, 20th and 21st, 1896, Dr. Jacob Teschner of New York, was invited to read a paper on "The Rapid Cure of Rotary-Lateral Curvature of the Spine, and other Postural Deformities, by means of Thorough Development and Corrective Exercises with Heavy Weights," and to give a demonstration of his method.

He referred to his former paper, "The Treatment of Postural Deformities of the Trunk, etc," (Annals of Surgery, August 1895,) for his views on etiology and report of cases.

He reports additional cases making a total of twenty-one cases treated, of which nineteen were discharged cured, and two were improved when they discontinued treatment. The average time of treatment was two and one-half months.

Upon these results he claims the *rapid* curability of these deformed conditions, not only in mild cases, but also in those where the deformities are fixed from bony and ligamentous changes.

To demonstrate the rapid results, he reports as an example a case (with photographs) in which a well marked deformity in a patient was obliterated, after three weeks of actual treatment.

The deviation of the spine, the prominent scapulæ, the unequal iliocostal curves, the unequal height of the shoulders, the rotation of the spine, and the abduction of the right foot, had disappeared.

He subjects his patients to two forms of exercise, viz.: developmental and corrective. A series of twenty-six exercises were executed by a former patient, with a pair of five pound dumb-bells. The corrective exercises are the following, with variations according to the individual requirements, viz.: Swinging bells (weighing from five to eight pounds each) overhead from the floor, with the upper extremity rigidly extended. This is done first with one hand a certain number of times, and then the same number of times with the other hand. Then swinging a pair of bells with both upper extremities rigidly extended. A pair of bells (weighing from five to forty pounds each) are pushed alternately and automatically to above the patient's head, to the individual limit. Various exercises are also given with steel bars and bar-bells weighing from twenty-six to over one hundred pounds. These corrective exercise were also demonstrated.

The rationale of these corrective exercises is that when a patient swings, pushes or sustains a heavy weight above the head, the action of the back muscles to sustain the weight and equilibrium is such as to cause a curved spine to approximate a straight line. When a heavy bar is pushed with both hands the head is bent backward, the spine is straightened and hyper-extended, and the faulty position is thereby corrected. The forcible and voluntary temporary reductions of deformity, frequently repeated, can, according to Dr. Teschner's results, be depended upon to cure any case of curvature, or other postural deformity, which is amenable to any form of active treatment.

He takes the standpoint that (1) lack of strength and lack of muscu-

lar development, (2) habitual faulty position with superimposed weight, and (3) lack of co-ordination power, or lack of muscular control are the more potent etiological factors in producing deformities.

He corrects deformities by reversing these conditions: (1). By developing the muscles and their strength; (2) by acquiring an habitually corrected position with superimposed weight, and (3) by educating all the muscles to proper co-ordination and complete control. All the patients improve in general health. Measurements and strength tests were made according to the Sargent system and recorded upon the Sargent charts. The chest capacities, chest depths, girths, breadths, and strength tests are generally increased, the abdominal depths are decreased, and the feet, the foundation of correct posture, are improved, inasmuch as all flat feet become shorter from the increase of the depth of the inner arches, and normal feet grow.

The weight increases as a result of this treatment, and the general circulation is improved, the pulse is less frequent, and of better volume, as shown by Basch's Sphygmomanometer. Gymnasium and class work are strongly objected to. So are all supporting and immobilizing appliances, because they interfere with perfect muscular freedom.

A Fœtus Stabbed.

The Nursing Record has published a remarkable case of a woman who, when six months pregnant, was stabbed twice in the abdomen. Both wounds penetrated the abdominal cavity, and as there were signs of internal hæmorrhage, the abdomen was immediately opened. The uterus was found to have been perforated in two places by the knife, and the wounds were closed by sutures, the hæmorrhage being thus checked and the immediate danger removed. The patient progressed very well until the third day, when severe pains came on, and, on the next day, an abortion took place, from which she completely recovered. The fœtus was dead, and on being examined, it was found that one stab had penetrated into the left side of its chest, and that another had wounded the small intestine in two places, purulent peritonitis having thus been set up. The case, we believe, is unique, and the fact that peritonitis from the intestinal wound had been caused in a six months' fœtus, is a clinical fact of the greatest interest.

Danger in the Prick of a Black Thorn.

A. Reverdin holds that there is some foundation for the peasants' belief that a puncture of the skin by a black thorn is more likely to be dangerous than other pricks. Whilst resting in the shade he observed a butcher bird perched on a neighbouring tree from which it darted forth occasionally returning with some insect as its prey to devour it at its ease. After some time the bird, instead of coming back to the tree, flew with the insect it had just caught to a neighboring hedge, but then returned without it, as if it had escaped, and caught a large cockchafer, which it carried likewise to the hedge, returning without it. Reverdin walked to the hedge, and there, on a black thorn, found the bird's two last victims, impaled alive, trying to escape, but in vain. In fact, this bird uses the thorn as it larder. Doubtless the impaled insects are some

times left to putrefy, and a prick with a thorn thus rendered septic may very likely give rise to a disagreeable phlegmon.

Variations in the Pulse and Cardiac Volume with Corresponding Changes in the Size of the Liver and Spleen.

M. Heitler (British Medical Journal) in studying certain cases of arrhythmia cordis, found that when the pulse is small the cardiac dulness is larger than when the pulse is large. Recently he has discovered that with a small pulse and large area of cardiac dulness there is a corresponding increase in the hepatic and splenic areas of dulness. In cases of weakness during convalescence from acute infectious diseases the physiological variations in the cardiac volume, which Heitler first observed in 1890, may be increased. The rapid development and disappearance of passive congestion of the liver has been recognised. Sometimes the edge of the liver may be felt during the evening at the umbilical level, and the next day it may have receded below the costal margin. On one occasion Heitler was demonstrating a patient with mitral stenosis and enlargement of the liver from passive congestion, and whilst he was speaking one of his audience examined the patient, and said he could not find the hepatic enlargement. Heitler thereupon re-examined the patient, and discovered that the liver had already become smaller in size, and before he had finished the examination the organ had returned to its normal dimensions. The projection in the epigastrium had likewise disappeared. The whole change had taken place in about five minutes between the two examinations.

Echinococcus of the Fallopian Tubes.

Doleris (British Medical Journal) has collected no fewer than 79 cases of hydatid disease in the female pelvis; 4 occurred in his own experience. Of these 4, 1 was an example of echinococcus of the Fallopian tubes, and apparently unique. The patient was 36, the daughter of a butcher, and subject from girlhood to menorrhagia. When 24 she married a butcher. Slaughtering of sheep and calves was done nearly every day on the premises, and there were two bulldogs in the house. Hypogastric pains set in towards the end of the first year of married life. A few months later constipation and dysuria complicated the pains. Eight years before operation a doctor detected a large tumour. The menorrhagia evidently misled him, and he gave ergot. Steadily and slowly the swelling increased. When Doleris examined her he found a very irregular tuberculated tumour filling the pelvis, reaching the epigastrium, and of the volume of a gravid uterus at the seventh month. It felt hard and elastic. The pelvic part was fixed; the part in the abdomen, which was very nodular, so that the nodules pushed forward the thin abdominal walls, was to a certain degree movable. The abdomen was opened. The tumour did not adhere to the parietes, but the omentum was firmly incorporated with it, and there were strong adhesions to the rectum, cæcum, vermiform appendix, bladder, and fundus. The latter had to be partially cut away with the tumour, the cut surface of the uterus (as well as a large raw area in Douglas's pouch) being touched with the thermo-cautery.

The uterus was then fixed to the parietes. The tumour weighed nearly 4½ lbs., and at its broadest portion measured 12½ inches. It consisted of two Fallopian tubes enormously distended and full of hydatid cysts. This distension was phenomenal and far greater than is ever seen in the largest hydrosalpinx. The length of the two tubes was over 42 inches; of course the convolutions were very pronounced. Both ovaries were healthy. The adherent pelvic peritoneum, which came away with the tumour, was riddled with minute hydatid cysts. The patient made a good recovery.

Epilepsy.

Since Brown-Sequard formulated his celebrated mixture of the bromides these have everywhere been regarded as the "Sheet Anchor" in the treatment of epilepsy and whatever progress has been made has only been in the line of additions to these efficient remedies. Hammond (Diseases of the Nervous System) says: "The treatment of epilepsy rests solely on experience. Among medical remedies the bromides stand pre-eminent and should be thoroughly tried first in every case." He adds: "Herpin several years ago called attention to the salts of zinc in the treatment of epilepsy. I have used the lactate and still more recently the *bromide* with very definitely beneficial results." Lauder Brunton says of the bromide of potassium: "It is especially beneficial in epilepsy and by its use convulsions can almost always be lessened if not entirely stopped." (Therapeutics, etc., p. 521). Allen McLane Hamilton says of the treatment of epilepsy: "No general remedies have been of so much service as the bromides especially those of sodium, ammonium and potassium, and since their introduction about twenty years ago, the number of cures has greatly increased and the prognosis improved as our knowledge derived from experimental therapeutics has broadened." (Reference Hand Book, Vol. 11, p. 708). The literature upon this subject is so vast that volumes might be filled with quotations from standard authorities only, but our desire is to make the briefest reference to these with the view of calling attention to "NEUROSINE," the elegant preparation of the usual bromides together with bromide of zinc and the pure and reliable extracts of Cannabis Indica, Henbane and Belladonna. Since Trouseau announced the great efficacy of Belladonna in the "Petit Mal" it has held high rank as an admirable addition to the bromides. Of Cannabis Indica and Henbane it is well said: "In morbid states of the system it has been found to cause sleep, to allay spasm, to compose nervous dlsquietude and to relieve pain. In this respect it resembles opium, but it differs from that narcotic in not diminishing the appetite, checking the secretions or constipating the bowels." (U. S. Disp., p. 351). It is only reliable when properly prepared from a pure specimen of which "NEUROSINE" is composed.

A small-pox hospital at Oakridge, near Stroud, in England, was recently burned to the ground by a mob of several hundred people, the majority of whom were residents of the vicinity, who objected to its presence in the neighborhood. A party of police from Gloucester appeared on the scene early the following day and arrested the leaders, who are now held for trial.—*Ex.*

The Best Method to Teach Obstetrics.

This was the title of Dr. J. Clifton Edgar's paper read before the American Medical Association.

In his introduction to the elaborate scheme of instruction here elucidated, the author recalls the statements as to the necessity for reform in haphazard didactic lectures on this branch of medicine so universally prevalent a decade since. The student was taught the art of obstetrics; the science of midwifery was a sealed book to him and the world was the sufferer thereby. While this condition has not entirely changed, the lengthened courses and modern methods of instruction, establishment of new lying-in hospitals and the opening of them to the student in his collegiate course has removed much of the reproach richly deserved ten years ago. Now, there are in New York City, six medical schools which require that each student shall have attended at least 6 cases of confinement before graduation, where no such condition and no opportunity of fulfilling it previously existed, and five institutions devoted to lying-in cases whose wards are open for obstetric teaching. Throughout the country, however, the older condition very generally prevails,

The best method of teaching obstetrics is a combined one. The student should acquire a working knowledge of the science before applying himself to the art of midwifery. The subject should not taken up until his second year after courses in anatomy and physiology. His ideas as to the size, shape and position in space of the female pelvis organs, as well as their histological anatomy should be clear and crystallized. After this, the student's work should be so systematized as to turn him out at the end of three years more, if not an accomplished, at least a competant accoucher. Some definite plan must be adopted to this end and experience has taught that the method embraced in the four following divisions, taken up in the order named, is the best:—

I. Systematic Bi- or Tri-Weekly Recitations during the second college year. An effort is being made to supplant the old didactic lecture with these recitations, which are made as real and interesting as possible to the student, by abundant illustration. The means of illustration are readily attainable and consist of pelves, entire and in sections, models, wet and dry preparations, obstetrical instruments, and plenty of blackboard space. The class should not exceed twenty, and each individual should have his task assigned to him, a portion (5) of the section taking the blackboard, another, the specimens, a third, the models, and a fourth, being quizzed while waiting. A sufficient time at the end of the hour is reserved to go over the work of the divisions. Among the wet specimens are placentæ with membranes and ova, embryos and foetuses, uteri with decidua; among the dry, placentæ injected through the vessels. Of the models, sagitial sections of the pelvis, mounted on a blackboard so as to allow of being fixed in any plane, is most useful. As illustrations of the branches taught in this way may be mentioned pelvic deformity, malposition, the causes and methods of delivery.

II. (1) Demonstrations and Manikin Work; (2) Attendance upon Obstetric Clinics; and (3) Laboratory Work during the third Collegiate year. The instructor should be a demonstrator of obstetrics and his department should consist of a combined museum, manikin and recitation room, furnished with all the aids to teaching in this line. The class

should not exceed thirty. (1) Bi- or tri-weekly meetings for six or eight weeks will pretty thoroughly cover the ground so far as demonstration and manikin work goes. A review of the theoretical work of the second year should be given a practical application. The whole section should be occupied as before. Three or four manikins, fœtuses, puppets, placentæ, pelves, models must be constantly at hand to demonstrate the parturient canal with its curves, cervical dilatation, size and shape of uterus at various stages, rupture and repair of them, etc. These are to be viewed as auxiliaries merely, and care should be taken that no misconception arises. This is the time or opportunity given the student to render himself expert in the use of his knowledge. An occasional demonstration of the diagnosis of pregnancy on the living subject should be made. (2) Attendance at an obstetric clinic will be of service in fixing the student's theoretical work and demonstration and, if possible, he should watch the delivery of several cases. If he can take this maternity service now, so much the better. (3) Special opportunity to study advanced pathology, bacteriology and embryology should be provided for the student. Advanced research is best undertaken in vacation intervals, owing to press of other work.

III. Resident services in a Maternity Hospital which shall include (1) Examination of Pregnancy under competent instructors. Actual delivery by the student himself under rigid supervision in both. (2) Indoor service, and (3) "out-door" or Polyclinic service. Attendance on the (4) Obstetric Clinics of the Hospital, (5) Theoretical Lectures (illustrative in character) and (5) Recitations on the practical work performed.

The student should not only witness, but actually confine the patients always under the eye of an instructor. His first observations in the hospital should be in the examination and care of pregnancy, carried out with minute detail relating to labor puerperium and new-born children. The principles of obstetrical cleanliness should be thoroughly inculcated. After examining several pregnant women, the student may be allowed to confine cases under supervision in the wards, the future care of the cases assigned to him. (3). The out-patient service may now be opened to him and its advantages are really greater, for he is thrown, to some extent, on his own resources, being practically in charge of the case. (4). Each delivery may, in the maternity, be made the occasion for an obstetric clinic, all the steps in the management of labor and operations in interference being explained. (5-6). Little time will be left for theoretical lecture and for recitation, but, if introduced, they should bear on the work in hand.

IV. Theoretical or didactic lectures on advanced obstetrics. There is still a place for this form of instruction. The course should be given in the fourth year and cover abortion, puerperal infection, extra uterine gestation, etc. Fifteen minutes of each hour should be given up to recitation on the preceding lecture.

The author concludes his paper with an earnest plea that obstetrics be not regarded as a specialty, but as an integral part of medicine and surgery, covering a part of both fields and linking them more closely together, and claims that this fact should be brought home to the student on every possible occasion.

His views are supported by a number of apt illustrations, toxæmia, glycosuria in the field of medicine, dilatations, curettage in that of surgery.

Treatment of them falls to the obstetrician only because of his peculiar skill, not because the surgeon and physicians are not equally competent to cope with them.

The Balance of Therapy.

Thomas Osmond Summers, M. A., M. D., F. S. Sc., London, etc. (Alabama Medical and Surgical Age).

Amid the tremendous impetus of scientific thought which has been given to the progress of modern medicine by the researches of histology and bacteriology, developing results almost miraculous and suggesting possibilities almost infinite, there is a danger of overlooking those inorganic principles which go largely to make up the structure of the universal organism and upon which these "vital units" must necessarily depend for their formation of structure and their ultimate design of function.

When we consider that of the fourteen elements which enter into the composition of the body a very large proportion is drawn directly from the inorganic world, entering into the system as such and passing out unchanged except so far as the functions they have executed, it will at once suggest to the conservative mind and the true rationale of investigators, which recognizes every principle of structure and of function as it operates to fulfill the complement of physiological development. From time immemorial it has been a recognized fact that natural death apart from all extraneous influences comes to man or animals by the steady encroachment of the inorganic elements of the body upon those that have been organized upon vital processes, under the influence of hereditary diathesis. Recognizing this important factor in the process of animal life, it would seem strange to ignore the power of these inorganic agents to determine, control or arrest the functional activities of any living organism. To the practitioner of medicine who, conscientiously and carefully differentiates the symptoms of every case he is called to treat, it need only be remarked that the very fact that certain inorganic elements are wanting in the organism is proof sufficient that either they are not offered to the absorbent system in a receptive condition, or that there is some want of absorptive power in the tissues themselves. It is very easy to say to an anæmic, chlorotic patient, "Your blood needs iron." Wise statement that! Of course it needs it. But why does it need it? What are the conditions now existing which prevents its appropriating iron from the ordinary channels of food-nutrition that did not exist before the anæmic condition was observed? It is just this which must be corrected, and no amount of medication containing these wanting ingredients will prove of any value until the osmotic relations are re-established upon which all metabolism depends.

It is just here that inorganic therapy comes in to solve the problem. It is a well known fact that excess of carbon dioxide, the result of retrograde metamorphosis in the organism will render albumen osmotic and permit its infiltration intro the uriniferous tubules. Chemistry comes to our aid and shows us that if phosphates can be brought into the blood in a proper relationship they will correct this condition; will arrest albuminuria and re-establish the osmotic balance, reducing the albumen to a condition of suspension instead of the pathological condition of solution.

Ordinary phosphates will not do this. They must be reduced themselves to a condition of assimilation.

This has been accomplished in the combination known as MELACHOL which is none other than a reduction of these principles to a physiological character. Again, we have another and more startling evidence of the power of inorganic agents thus rendered physiologically assimilable, in the withdrawal by direct chemic influence of the livery placed upon nerve centers by the habitual use of opium and its alkaloids. No one who has not witnessed the magic effect of this physiological inorganic preparation upon the habitues of this drug can fully appreciate its value.

Aside from its general tendency to the re-establishment of the nutritive functions, its orderly action upon the intestinal tract (which, by the way, is applicable to many other torpid conditions of the body), it has remarkable power of substituting an investment about the nerve centres which renders the withdrawal of the drug almost painless and without material discomfort. We have tested this upon animals to an extent which is marvelous in the extreme. Animals rendered immune to an almost indefinite quantity of morphia have, under the influence of *Melachol*, been reduced to perfectly normal physical condition.

Patients who have taken as much as fifteen grains of morphia daily have been deprived of it, with the use of *Melachol*, without anything more than a temporary nervousness, nor has the craving for its use returned.

Its action upon the alimentary canal is in perfect rapport with physiological principles—relieving chronic constipation, restoring the osmotic balance of nutrition and waste, and regulating the secretory and excretory functions of the organism.

Not only so, but it sustains the therapeutic action of those agents which are now absorbing the attention of the scientific world. All antitoxines, of whatever nature or origin, are rendered active by its aid. It opens the way for a physiologic leucocytosis—the basis of all true therapeutic action in the administration of antitoxic agents. It sustains the normal relations of the organism and lays a solid physiological foundation for all therapeutic measures.

The mode of preparing these inorganic agents as found in *Melachol* is simply the reduction to physiologic relations; and the range of its adjuvant power is only equaled by its direct effect upon the osmotic relations of the blood.

The Onslaught of Modern Surgery.

Dr. N. Senn in a recent address at Atlanta, Ga., pays his compliments to abdominal surgery in the following remarkable language, which it will repay all concerned to consider:

The greatest onslaught of modern surgery has been upon the organs of generation, male and female. The future historians who will record the work of many gynecologists belonging to the present generation will have reason to express their surprise at what disasters the art of surgery has produced when plied in cases far in advance of a scientific foundation. Here and there we hear a feeble voice protesting against the indiscriminate surgery upon the organs of generation of the opposite sex, but the mutilating work continues in spite of such opposition and well meant advice. When we arraign the gynecologists before such a representative body,

composed of representative medical men of this country for innumerable and inexcusable transgressions of the rules which ought to govern and control the art of surgery, we do not include the scientific, conscientious workers in that department of surgery, but our remarks apply to a class of routine operators which have recently grown to alarming dimensions not only in this, but in nearly every country which has been penetrated by the dim rays of so called bold surgery. The new generation of doctors finds no longer satisfaction in practising their profession in some rural district. They have their eyes on large cities and have heard of enticing fees paid to specialists for insignificant operations. Why buy a horse and saddlebags when a fortune awaits them in devoting themselves to a specialty, more particularly gynecology? The recent graduate or the man who has become disgusted with country practice seeks a much employed gynecologist, follows his work for a month or two and returns to his prospective field of labor a full fledged specialist. He is now ready to extirpate the uterus, remove ovaries and Fallopian tubes, sew imaginary lacerations of the cervix and perineum. Do you suppose that such an aspirant for gynecological fame ever examines a woman and finds her perfect? Is it not true that in nine out of ten cases he finds something to mend?

Laceration of the perineum is a favorite subject of the amateur gynecologist. The extent of laceration and the symptoms caused by it are not always carefully considered in deciding upon the propriety of un operation. The performance of an operation on the perineum in five or seven minutes still serves as an attraction for the lookers-on in many private hospitals and gynecological clinics.

The frequency with which women are being castrated is one of the most flagrant transgressions of the limits of the art of surgery. It is not unusual for one operator to exhibit five or six normal ovaries as the result of half a day's work. All kinds of excuses are made for this kind of surgery. Where is this wholesale unsexing of our female population going to end? The beginning of the end has come. The army of women minus their essential organs of generation is beginning to raise its voice against such mutilating work. The number of women who willingly sacrificed their ovaries to restore their shattered health without securing the expected relief has increased to an alarming extent. This sad experience has made the gynecologists more desperate and bold. It is difficult to say where this rage for the removal of the female sexual organs will end, or what organ will be the next battle ground for the aggressive gynecologists. The clitoris, the vagina, the cervix uteri, the ovaries, the Fallopian tubes, the uterus and its ligaments, have successively passed through a trying ordeal of operative furor. What the next fad will be is impossible to foretell.

The Balsam of Peru Treatment of Scabies.

Julien and Descouleurs calls attention to the advantages of the above non-sulphurous treatment of itch, their conclusions being based upon 300 cases observed both in private and hospital practice. It is known that the acarus placed on a watch glass and exposed to sulphur fumes may may remain alive for sixteen hours, and that it generally survives over an hour's immersion in flower of sulphur and Helmerich's ointment. Dr.

Descouleurs placed six in contact with balsam of Peru and found that in ten minutes two were dead; in twenty minutes three more had succumbed; and the last of the six died soon after. This experiment confirms the conclusions of Burchardt, who, moreover, discovered that the balsam kills the eggs as well. It is probable that the volatile oil—cinnamein—that according to Fremy is the essential constituent of the balsam, kills the acarus at a distance through asphyxia and not through a corrosive action or by disruption, for Hebra has shown that the parasite can live for a week in water at 30° C., and Dr. Descouleurs has witnessed survival for three and a half hours in glycerine. The application of the method is simplicity itself. No soap is required, the balsam being painted on the surface and then gently rubbed into the whole body with the hand. The remedy being volatile penetrates readily into the "runs" without involving the necessity of opening these up. The patient remains thus all night, a warm bath being taken in the morning, when the cure is said to be complete. A repetition of the process, if necessary, produces an irritation of the skin. Inveterate cases that had resisted the classical and rather severe *frotte* at the St. Louis Hospital were all invariably cured by this method, which would seem to be specially indicated when scabies is complicated with impetigo, eczema, ecthyma, and boils, and also in cardiac cases, pregnant women, and feeble subjects with delicate teguments—e. g., babies. The rather agreeable odour of the balsam tells greatly in its favour, especially in private practice.

Mental Symptoms in Bodily Disease.

"*Mens sana in corpore sano*" is a very true saying, and everybody knows—most of us by personal experience—the effect that diseases—even quite trivial ailments sometimes—have on the mind. Reynolds divides the mental symptoms occurring in bodily disease into two classes—those slight mental changes in the feelings and emotions not amounting to actual certifiable insanity, and actual insanity. The first class may be subdivided roughly into pleasurable feelings, depressed feeling, conditions of mental dulness, abnormal irritability of temper, and feelings of terror. The conclusions arrived at by Reynolds are as follows:—(1) It is a comparatively rare occurrence for actual insanity to develop during the course of bodily disease. (2) In general hospitals mental disease most commonly occurs after fevers, poisons, injuries, operations, and heart disease (in about this order of frequency). (3) In the early stages of fevers, and after injuries and operations, mania is the commonest form of insanity; but, in either conditions, depression is more common, but the commonest form is an insanity with marked delusions of persecution, often associated with hallucinations of hearing, such as one sees in phthisis and heart disease, and after typhoid fever. (4) There is no form of insanity connected with special bodily disease, so that it is not possible to diagnose the bodily disease from the mental symptoms present, except the peculiar state of alcoholic paralysis. (5) Insanity occurs with unusual frequency in bodily disease, associated with peripheral neuritis, as poisoning by alcohol, carbon bisulphide, and lead; pellagra, typhoid, typhus, scarlet, and rheumatic fevers, influenza, pneumonia, phthisis, syphilis, septicæmia, rheumatism, gout, and diabetes. Is it possible that in these conditions the factor which causes the changes in the peripheral nerve causes also

similar changes in the multitudinous internuncial fibres in the brain, and so produces disturbances in the normal cerebral reactions which go to make up a healthy mind? (6) When the cause is not continuous—such as the poisons, the fevers, and the traumata—the mental symptoms in the great majority of cases disappear; in heart disease and phthisis they may disappear and reappear from time to time, but in some cases, such as insanity connected with gouty kidney, they only disappear with death.

A Test of Zumo-Anana and Other Things.

This more in the way of a friendly communication than anything else, however, I will write on but one side of the sheet, and if I should happen to stumble upon any material that might be available to you as publication matter, you are at liberty, of course, to use such as will be of service to you. The Zumo Anana kindly ordered sent me by you, reached me in due time. I am watching every opportunity of giving it a fair trial, and am so far pleased with its action. While I have not tried it on every petty case that has fallen under my notice, and have therefore used it in but few cases; still those cases where it has been used have been good ones, and the results are gratifying and demonstrate the value of the medicine. This method of testing has seemed better to me than giving it to a number of cases that probably would have gotten well anyhow, and then jumping to conclusions. I had one case of a young woman with perverted appetite and all the ills of indigestion. She desired food of an indigestible character, and had no appetite whatever for wholesome food. A big cucumber pickel and a drink of vinegar would often constitute her breakfast. Bread, potatoes, rice, meat (except pork) wholesome food of any kind, almost nauseated her. Headache, lassitude, heavily coated tongue, and all the train of symptoms on an abused stomach were present. After a preliminary setting to rights and a cleaning out of the system in general, coupled with an order depriving her of a diet of indigestibles, I put her on the Zumo-Anana. The first thing noticeable was her entire willingness to take the medicine. The taste was very pleasant and the initial action on the stomach was agreeable, producing as it did a sense of warmth and comfort. This in itself is a recommendation for the medicine. Its further action medicinally was good. It did not work any miraculous cure, but gradually and slowly, but steadily there has been improvement. The desire for indigestibles while still present is much less than it was, and there is less impatience over their withholding. Plain ordinary food is partaken of with growing relish, and the symptoms of indigestion are about gone.

I am now trying it on another case of long standing, which I will report in a couple of weeks if it progresses favorably. I have picked up two more cases that I will tackle this week and will keep you posted. As I before remarked, my work may seem slow, but I can tell you something when I am through.

Yours truly,

Dresden, Ohio. JAS. L. NEAVE, M. D.

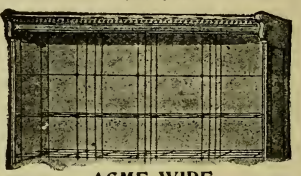
Cotton-root bark, exhibited in doses of twenty to thirty minims of e fluid extract, for several days, is said to be an excellent preventive of eeding at the nose, spitting of blood, voiding blood in the urine, etc.

Dr. Coleman, of Columbus, In an address before the Legislative Committee of Ohio on the Kimmel Bill, gives the following statistics of the medical profession in the State: "Number of physicians 9,000, of whom 6,814 are regular physicians; 1,999 Eclectic; 678 Homœopathic; 150 physo-medical and 757 unclassified.

Cinnamon for Cancer.

Dr. J. Carne Ross gives the results of some experiments he has undertaken on the above subject. Dr. Ross states that while carefully guarding himself from saying anything that would suggest that cinnamon should be regarded as a so-called specific in cancer, yet he has invariably found that where pain was present it ceased, that fetor disappeared, that the general health invariably improved after using the drug. The best results have, on the whole, been obtained where the tumor was cut off from the air by being situated either in the stomach, the rectum, the uterus, or the mammæ, where the superjacent skin and covering of the nipple were intact. Dr. Ross then gives particulars of five cases which were under the cinnamon treatment, in each of which marked improvement ensued. The preparation of cinnamon employed was a strong decoction, made by taking one pound of Ceylon sticks and boiling slowly in a closed vessel for eight hours in three pints of water till the water is reduced to one pint, pouring off without straining. The mixture should be shaken up before taking each dose; the patient to drink half-a-pint every twenty-four hours, the half-pint to be divided into such doses as best suits the patient.

PAT. DEC. 8, 1891.



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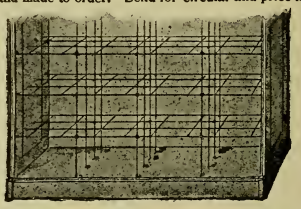

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The Best Method of Teaching Anatomy.

John B. Roberts, A. M., M. D., Professor of Anatomy and Surgery in the Philadelphia Polyclinic, read a paper with the above title at the Atlanta meeting of the American Medical Association. He said:

A prerequisite for the proper teaching of anatomy in medical schools is students able to understand the instruction. This means that their preliminary education should include elementary Latin, physics, and biology. The first is needed for comprehension of the nomenclature, the second to make the mecanical construction of the human animal intelligible, the third to furnish manual training in the use of instruments for dissecting and drawing and to create a habit of observation.

The dissecting room or anatomical laboratory should be scrupulously clean, practically free from offensive odor, and contain subjects properly prepared.

Its furniture should include articulated skeletons, disarticulated bones with muscular attachments indicated upon them, plaster of paris models of dissected regions, wet dissections under glass with diagramatic keys hung near them, dry preparations, ligamentus preparations of the joints, and a series of text-books and diagrams. All of these articles should be easily accessible to the eyes and hands of the students. Black-boards for demonstrative diagrams to be made by the teacher or students are essential. On one black-board the outlines of the skeleton and of the chief bones should be painted in white, so that time may be saved when the location of muscles and viscera is to be indicated in chalk.

The dissecting done by the student must be neat and thorough and should not be commenced until he has studied the bones and learned the principal muscular attachments. This is to be done from the bones and skeletons in the laboratory, not from looking at illustrations in text-books. He should be required to describe in writing or demonstrate to his class-mates and teachers.

The teacher should have ability to impart knowledge, inspire a love for it, and stimulate to independent thought and work. He must do original work as well as give instruction, for unless he is an example of the zeal and productiveness which he is to inculcate his teaching cannot be entirely successful. He should have a knowledge of biology and be a worker in practical medicine. A professor who holds the chair of anatomy only until he can get some other position in the faculty is not likely to be an earnest enthusiastic teacher. The lectures and demonstrations should continue through three years of the four years course and must be graded. The lectures should be illustrated by dissections, blackboard diagrams and the exhibition of the living model. The student should handle duplicate bones during the lectures on osteology and be near enough to see the demonstrations of the soft parts.

Comparative anatomy, embryology and histology must be included in the course.

"Anatomical clinics" consisting of demonstrations of the anatomical relations on healthy and diseased nude models are essential.

"Clinical Conferences in Anatomy," in which a member of the class demonstrates anatomical effects and relations to his class-mates under the supervision of a teacher are very valuable.

The teaching of the professor and his assistants should be officially

inspected by a committee of the faculty, for teachers left to their own conscience are apt to become careless and autocratic in their methods.

Examinations if possible, should be made during the term without the student knowing of their occurrence. This avoids cramming and nervous strain. Examinations should be written, oral and practical.

The Causes of Bronchitis.

Professor William H. Thomas in a recent paper before the New York Academy of Medicine among other things he said the following:

"We begin with the clinical fact that bronchitis develops first in the bronchial tubes themselves only in local infections, such as tuberculosis, or in toxic conditions of the blood, as in gout and uræmia. In all other cases, and they are far the greater number, the bronchial inflammation is by extension downward from the upper air-passages. In some instances the process seems to attack the different divisions of the respiratory tract simultaneously, so that it may not be apparent in the nasal cavity first; but even in those cases there will be seen an intimate association of the sensibility in all parts of the respiratory tract, which points strongly to a specific nervous connection between them, both sensory and motor, and which has a great deal to do with the genesis of the catarrhal process. Hence bronchitis begins so uniformly with sneezing, sore throat, cough, that both we and the laity concur in attributing it to taking cold. But what is a cold? The pathological definition of inflammation will not answer, for, while it usually induces inflammation, it is not identical with it. Taken in the order of their development, the clinical phenomena indicate clearly a cutaneous area of origin. A chill of some portion of the body, usually when in a wet condition, is the first incident, and evidently has such a causative relation to the process that only the exigencies of some preconceived theory would ever lead one to deny it. The important factor about a cold is that it is far oftener due to a very limited rather than to a very extensive exposure of the surface to cold. A draft from a car-window upon a few square inches of the back of the neck, or sitting with wet feet in a room, is often as plainly connected with an acute attack of bronchitis as is eating unripe fruit with diarrhœa. The variable results of exposure of different limited areas of the cutaneous surface to chill can only be explained by the nervous mechanism of the body. Our knowledge of this important subject is very imperfect, yet we already know a number of facts about the relation between the cutaneous sensory and vaso-motor nerves of internal organs, etc. The existence of close nervous connection between pair organs may be illustrated by plunging one hand into cold water, when the temperature of the other will be seen to fall, although the axillary temperature does not change. Cold on the nape of the neck will check epistaxis, while it will not stop bleeding from a tooth cavity. While there is little or no anatomical connection between the blood-vessels of the skin and the internal organs beneath, yet the nervous association is so intimate that an impression affecting the circulation in the skin is reflected on the circulation of the parts underlying it. Thus stimulation over the precordial region stimulates the heart as well. The more sudden and decided the nervous impression to the surface the more pronounced will be the internal result. In view of these facts we need not be totally at a loss as to the meaning of catching cold, or as to the term bronchitis caused by catching cold."

Yeast Nuclein in the Treatment of Hip-joint Disease.

In the American Lancet for January, 1895, Dr. Charles W. Hitchcock of Detroit, remarks that not all cases of hip disease are, with any fair promise of success, amenable to conservative treatment. Cases long neglected, in which erosion of the joint structures has already occurred, together with suppuration and resulting fistulæ, are not encouraging instances for non-operative measures. An early diagnosis is of the utmost importance, that the case may be taken in hand before gross and irreparable damage has placed it beyond the reach of any save the most heroic treatment.

The nucleins, says Dr. Hitchcock, are among the newer remedies that may do much as an aid to tissue-building, more especially as they are said to influence cell metabolism so as to bring about a healthy resistance to disease processes.

The germicidal properties of nuclein, he continues, have been demonstrated, and Vaughan and McClintock have shows that the germicidal constituent of blood-serum is a nuclein. Parke, Davis & Co., he says, have rendered yeast nuclein accessible to the profession. They make it for Dr. Vaughan and according to his formula; the solution which they supply is about a one-per-cent. solution. Of this solution of yeast nuclein, from five to sixty minims may be administered at a time. The dose may be increased gradually and cautiously from the initial dose (which may appropriately be about ten minims), regard being had to the febrile reactions, which may be decidedly marked and are to be looked out for.

He then gives the following report of a case: "March 30, 1894, I first saw Miss L. C., aged twenty years, of English parentage and in this country only about two years. She is one of a family of six children. One sister died at ten months, and one sister, aged nineteen years, has of late had what is reported by letters from her home as 'dropsy of the knees.' The father and mother are living and are healthy, so far as I can learn. One maternal aunt died of consumption. The patient herself is of medium size, rather rosy complexion, and somewhat delicate in appearance. The young lady gives a history of having been always well until December, 1890, when she fell on a sidewalk and struck on the left hip. The following month she fell on the ice on the same hip, which, she says, 'has seemed weak' ever since this second fall, though she was able to be about as usual and tried to persuade herself that she had no serious trouble. She went to the World's Fair in the fall of 1893, and each day's sight-seeing tired her greatly. Her left knee would pain her at night and the hip would ache; but she would not give up to it. Later, after return home, her hip began to pain her intensely after every walk. The first pain was in the knee, and more or less still continued there, but the hip now grew so exquisitely sensitive and painful that all use of the leg had to be given up, and for three weeks before I saw her (March 30th) she had not walked at all. She was obliged to lie on the back or right side, and I found the left leg well flexed and adducted. Any attempted passive movement of the leg seemed to give great pain, and the whole region about the hip joint was so sensitive that even the lightest pressure of the finger could scarcely be borne, though at the same time

the sensitive area presented nothing on inspection to attract notice. Any attempt, with the patient on her back, to extend the leg, quickly caused an arching of the pelvis to correspond to what little extension could be endured.

"Removal to the Harper Hospital was proposed and consented to. She endured the ride of two miles in the ambulance very well, and was admitted between 5 and 6 P. M., March 30th, with a temperature of 99.6° F. and a pulse of 80. Lead-and-opium stupes were applied to the region of the sensitive joint, and under their use the acute tenderness so subsided that on April 3d, by careful manipulation, we applied a simple Buck's extension, the plaster being applied the whole length of the thigh and leg. This was kept up for several weeks and with quite a heavy weight, greatly to the relief of the patient, pain gradually disappearing from the direct region of the joint, being longest complained of through the groin.

"June 1st I applied a plaster-of paris cast enveloping the entire left leg from the ankle up, and extending around the pelvis, An extra sole of about an inch and a half in thickness was now applied to the sole of the right foot, crutches were secured, and the patient was encouraged to be up and about. She soon began to walk some each day, but the weight of the cast annoyed her and its pressure about the pelvis irritated her (though it really fitted very well), and she found a semi-reclining position in a wheel-chair much more comfortable than the erect position. The cast had been relied on to make necessary extension, but now became somewhat loose and was removed on June 27th. Two days later a Buck's extension was again applied. The patient had not borne the confinement to bed and hospital well; she did not eat or sleep well, and was getting thin, although the hip was now very confortable. She therefore decided to leave the hospital, which she did on July 6th.

"On July 4th, under chloroform, I injected from two to four drachms of a ten-per-cent. iodoform emulsion into the joint cavity. I took this opportunity to completely flex the leg on the thigh and the thigh on the body. There was no adhesion or resistance in either joint, and no feeling as of erosion or thickening about the hip joint. During her stay in the hospital the temperature varied from normal to 100°, but the most of the time between normal and 99.2°. The pulse varied from 76 to 110. Malt, hypophosphites, cod-liver oil, and other remedies had been given, but had not been well borne.

"At home she was for a short time kept in bed, with extension, but soon tired of this and insisted on being up and about on her crutches. She improved somewhat in appetite and felt much better, but still slept poorly. She had no pain in the hip, and took several long walks and rides in the street cars. She presumed too much upon her ability to do, however, so that restrictions were necessary. Extension hardly seemed called for, but I had a Thomas splint made for her—to thoroughly immobilize the joint. This she continually wore during the day, and with no discomfort save the awkwardness in sitting.

"September 1st I began the systematic use of yeast nuclein, and the improvement almost from the first has been noticeable and extremely gratifying. The remedy has been administered hypodermically, and the site chosen was the region immediately around the affected hip joint.

The first few injections were made daily, but the reaction seemed to me so marked that I found treatment on alternate days to be more satisfactory. It was recommended, as a good precaution, to sponge the chosen site with a two- or three-per cent. solution of carbolic acid, for its antiseptic and local anesthetic effect. This precaution, however, I did not find necessary, but used great care with needle and syringe, sterilizing broth, each time, before using.

"From September, 1894, to January, 1895, the case was under constant supervision and care, and correct and detailed reports were kept noting the patient's temperature, general condition, and especially the amount of nuclein solution which was injected at each visit. At the beginning twelve minims only were used in each twenty-four hours, this being gradually increased to fifty minims with the happiest results. There were at times some pain and a buring sensation at the site of the injection. The temperature each afternoon was about 90° to 99.4°, on one or two occasions going as high as 101.2°. At the time of the last-named date the patient experienced no pain whatever in the hip and expressed herself as feeling as well as ever. The nuclein was temporarily stopped, and I do not consider it accomplished all a continuance of it might do. The improvement has been most gratifying since I began giving the nuclein, and I think there can be no doubt that her comfort has been due, in a large degree, to this remedy. It was given with the idea that her case was probably tuberculous, and for this suspicion the family history affords us more or less ground. The nucleins are said to be of avail in incipient tuberculosis, and this seemed a good case for their use, which is, of course, as yet largely empirical. The disease process in this case certainly seems to have been held in obeyance. Whether the action of the nuclein in such a case is simply to enable the cellular elements to, resist encroachments of bacilli, or whether we may hope for so strong a germicidal action as to destroy entirely the bacilli, is, I judge, a question concerning which one can, as yet, only speculate. This patient understands that she is forbidden to step on her left foot or use the limb before next summer, and the day may then be still further postponed. I do not yet regard, or now report, the case as one of recovery, but it seems to me especially interesting as showing gratifying improvement under the use of an agent, quite new as yet, which may have a wide field of use. I hope eventually to have the young lady walking without apparatus of any sort and an evidence of what conservative treatment may accomplish, even in a somewhat unfavorable case."

In a postrcript written in January, 1896, Dr. Hitchcock adds:

"This patient was kept under frequent observation until May, 1895, the splint having been discarded some time earlier. In May, first one crutch, then both, and later the cane were dispensed with, the injections of nuclein were discontinued, and patient has since walkeh through the summer and fall without support of any kind and without any discomfort whatever in the hip. She has been very happy and grateful for her relief from pain, and it has been delightful to see her evident joy in her ability to walk without suffering. Indeed, she has been altogether a pleasing fulfillment of what I hoped to do when I first reported the case in January, 1895, and this excellent result I attribute very largely, if not entirely, to the long and persistent use of nuclein."—*New York Medical Journal*, March 7, 1896.

A French chemist has made a blue soap which will render unnecessary the bluing in laundry work. In ordinary soap he incorporates a solution of aniline green in strong acetic acid. The alkali of the soap converts the green into blue, uniformly colouring the mass. This will be glad news to the housewife and laundry woman.

Infiltration Anæsthesia.

The method of obtainlng local insensibility of the skin by injecting fluid underneath it, and thus raising a wheal which is found to be perfectly insensitive, has been widely tried. A German contem porary has recently published a description of the employment of solutions containing cocaine, morphine, and chloride of sodium for this purpose. It has been found that the weakest of these solutions is sufficient to cause c'mplete insensibility for a considerable period. For relieving the pain of deep incisions, the method certainly gives greater insensitiveness than is afforded by the use of the ether spray, which really only paralyses the surface of the skin, and the nerves immediately beneath it. But as a practical fact it has been found that the anæsthesia depends more upon the fact of the distension of the tissues by the injeeted fluid than upon the exact drugs contained in the fluid. And it seems probable that as much insensibility is afforded by an injection of distilled water containing a few grains of common salt as by more potent drugs.

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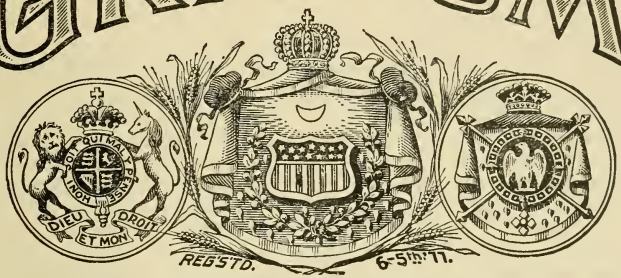

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The Prophylaxis of Typhoid Fever.

Dr. John Eliot Woodbridge, of Cleveland, Ohio, in a recent paper on "The Prophylaxis of Typhoid Fever," maintained that the disease is a water-borne infection—that every attack of typhoid fever is the child of some previous case—that it can always be prevented by excluding the excrementa of the human race from the domestic water supplies—that the treatment which he has advised is not only a perfect prophylactic, but it will invariably abort the disease if it be properly applied in its inchoate stage—hence death can always be averted, and for these reasons it is a wholly unnecessary consequence of this most dreaded of the acute specific infections.

He said the preventability of the disease being admitted, it became the manifest duty of governments to protect the people from its ravages; he showed that local sanitary authorities could do much in this direction, but as flowing waters are often vilely polluted, before coming within their jurisdiction, they were often powerless; that State governments could not protect the lives of the people because the water supplies were often contaminated beyond their boundaries and they could exercise no control over the citizens of other sovereign States, hence there is but one authority whose power is co-extensive with the limits of our country, and that power is the general government of the United States, which he severely arraigned for having so long neglected the most important duty that could devolve upon it, viz.: the protection of the lives and the health of the people.

He argued that the national government of the United States will not have reached the zenith of its greatness, and will not have performed its whole duty to its wards, until it has taken measures to guard its springs, wells, rivulets, lakes, and rivers, from unnecessary pollution, and that this can only be done by the organization of a new Department of the Government—The Department of Public Health—and this should be presided over by a Secretary, whose rank and power is co-equal with that of the Secretaries of the Treasury, of the Navy or War, and who, aided by wise legislation, has done every thing possible to give the inhabitants of each city, village, and rural district, pure water to drink; pure food to eat, and pure air to breath.

He held it to be impossible to over-estimate the importance of any step which is taken toward the prevention or cure of typhoid fever, because of its awful mortality, and he emphasized the fact that its universal distribution made its suppression a legitimate function of the general government; its prophylaxis the most important duty of the sanitarian and its cure the most laudable ambition of the physician.

He said that his announcement that typhoid fever can be aborted, had startled the medical profession, and had aroused a terrific storm of adverse criticism, but that so many physicians had already succeeded with the treatment which he had outlined in his former papers, that when his book, "Typhoid Fever and Its Abortive Treatment," (which will be published early in the present month,) and his clinical lectures in the Cleveland Fever Hospital have borne fruit, the curability of the most intractable of continued fevers will never be again questioned.

Washington, Byron and Cavour, were bled to death by their physicians.

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In a recent address Dr. Onslow Allen Gordon, of Brooklyn, said, in regard to the general practitioner and specialist:

All surgical cases are sent to the surgeon, gynæcological cases to the gynæcologist, throat and lung affections io the chest specialist, nervous diseases to the neurologist, diseases of the rectum to the rectal specialist, genito-urinary ailments to the genito-urinary surgeon, joint and bone diseases to the orthopædic department, eye and ear troubles (however slight) to the ophthalmologist. and skin diseases to the dermatologist; we can also find specialists who will call us good fellows if we will turn over our stomach, kidney, and hernia cases; yet there are very few specialists who will decline to treat a patient, not matter what his ailment may be, if the *money* is in sight. While people of moderate means still tolerate the family physician as an obstetrician, the more favored in worldly goods are looking for a specialist when an accoucher is desired. If matters continue on these lines, the specialist, or, more properly speaking, the general practitioner, will leave for himself possibly acute coryza and constipation. The tendency to rely on the specialist has grown to such an extent that there are many physicians who will not remove a retained placenta, suture a recently lacerated perinæum, however simple, open an abscess, or venture a diagnosis in any obscure case. It is the custom of the times that makes them hesitate to rely more on their own judgment and call into action the ability their patients have a right to expect them to have It has been well said, "The wise and brave conquer difficulties by daring to attempt them."

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"I never endured such mental and physical suffering in my life, as I did about a year ago. I was 'engaged' at that time and the happy day was set. Time flew rapidly by until I noticed a sore like a fever sore on the side of my nose. It was red and itched, and I scratched it frequently. The more I scratched. the worse it got. It spread over my face. A similar spot came at the belt and spread all over the lower surface. including the thighs and legs. It spread upwards to the breasts and from the face downward. It seemed to be universal. The itching became intense, and an almost unbearable burning set in that nearly drove me crazy. I could not cease scratching and rubbing for a moment, and I got no sleep at night. I could not bear my clothes. I was in agony, in a "hell on earth" —I was burning up. My skin watering and scabbing and no prospect of relief in spite of lotions, salves, and internal medicine. Add to it all, the 'happy day' staring me in the face from a distance of but three weeks. How could I meet it? Mortification and humiliation—I had gone too far—I could not retreat; I despaired. However, I kept my senses. My doctor gave me a box of Pineoline, and told me as a last resort, to use it according to directions. I did so, trying it first on my face. The relief was immediate. The itching and burning were allayed, and I applied it extensively with the same result. Whenever the relief subsided I applied it again, and in two weeks was well. As I feel now, I shall never be without this valuable remedy, which combines the highest healing and anodyne paoperties with the delightful fragrance of the pine forest."

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Chemist and Graduate of the "Ecole Centrale des Arts et Manufactures de Paris" (France).

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TABLE OF CONTENTS FOR MAY, 1896.

ORIGINAL COMMUNICATIONS— PAGE.

Contracted Meati, Their Causes, Reflexes and Treatment—By M. E. Van Meter, M. D., San Francisco ... 593
Some Remarks on Chronic Aural Catarrh—By William Martin, Bristol, Pennsylvania ... 596
Diphtheria: Diagnosis, Prognosis and Treatment—By Everett D. Peek, M. D., Boonville, N. C. ... 599
Lacerated Wound of the Eye-ball; A Clinical Lecture—J. Herbert Claiborne, Jr., M. D., New York ... 601
A Few Notes on Organotheraph with Special Reference to the Usefulness of Thyroid Extract in the Treatment of Different Diseases—By H H. Vinke, M. D., St. Charles, Mo. ... 604
Lupus Vulgaris—By Chas. Geiger, M. D., St. Joseph, Mo. ... 607
The Surgical Treatment of Uterine Fibroids—By R. E. Haughton, A. B., M. D., Kichmond, Ind. ... 609
The Sterilization and Storage of Catgut—By J. Coplin Stinson, M. D., San Francisco ... 613
Hydrobromate of Hyoscine—By Walter Lindley, M. D., Los Angeles, California ... 614
A Means of Emptying the Bladder—By Dr. Edward Anderson. Rockville, Maryland ... 615

EDITORIALS—

The Importance of Testing the Urine in All Cases ... 619
Professional Truth and Honesty ... 620
Operation in Appendicitis ... 620
The Practical Value of Rontgen's Photography ... 621
Sources of Opposition to Brandt's Treatment of Typhoid Fever ... 622
Retroversion of Uterus as a Complication in Abortion ... 623
Hobbies ... 623
Origin of Malpractice Suits ... 624
The Halcyon, Atlanta, Ga. ... 625
Mind Cure ... 625
Serum Therapy in Cancer ... 625
Longevity Influenced by Water ... 626
Dr. C. P. Ambler Returns to the Winyah ... 626

BOOK REVIEWS ... 627

LITERARY NOTES ... 628

MISCELLANEOUS ... 633

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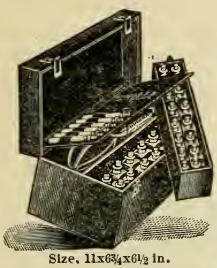

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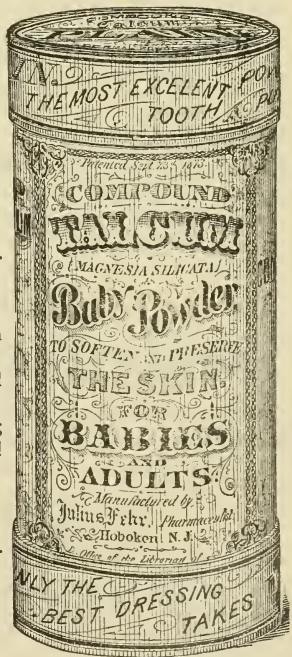

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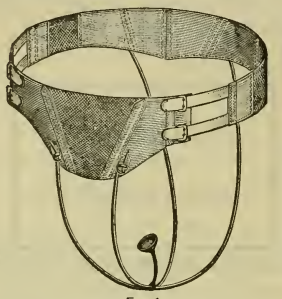

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The Charlotte Medical Journal.

VOL. VIII. CHARLOTTE, N. C., JUNE, 1896. No. 6.

The Young Man in Medicine.

By ARTHUR D. MANSFIELD, M. D., Member of the Staff of Presbyterian Eye, Ear and Throat Charity Hospital, Baltimore, Md.

I know of no calling in life where a young man is so hedged about by restrictions, and where the existing environments so closely enfold a young man as in this profession of ours, known currently as the Medical Profession. With what memories we call to mind the glowing and enthusiastic charges delivered to the embryo "M. D." as he pecks at the shell of publicity and like a downy chick peeps out upon the world with fear and trembling, wondering how he is going to manage his first labour case alone and unassisted, or how he will bring to a successful issue his first grave malady; how readily he recalls the ease (on the black board) with which "Professor Obstetric" "seizes a foot turns and delivers," and then what joy and divine emotion fills his heart as he hears the eulogist lauding to the skies the young physician, that he is following the noblest calling in life, that his life is to be one of great and good works, that the race he is about to run is to relieve suffering and ailing humanity, and the goal of reward, though far distant, is yet abundant and ample. The pictures of warm comfortable quarters are drawn as eloquently as can be portrayed by the silver tongued orator (he was selected on account of his tongue), and then the fact that the young physician leaves these to go some distance in the bitter cold to attend suffering humanity in some low squalid surroundings; ah! *noble! noble!* thrice noble is the man who is to give up his own ease and comfort for the good of others. It is divine "to do good unto those that dispitefully use you." No one doubts that one minute, or questions the accuracy of that statement.

Commencement day has left marks on the tablet of memory, no matter how many battles may later be waged and conflicts won or lost. These memories of commencement day, were they carried out, would make medicine a pathway strewn with roses—sweet peas and lillies; but alas! many questions are presented daily, weekly and yearly to the medical man as he emergies from his so-called embryonic condition and puts on gradually the plumage of experience, and thus is his own inner self, moulded and his character formed, that is to last him his life time. How many men, even in our own profession, are accounted great, good and noble when their greatness, goodness and nobility are but so many steps and risers of other men's reputations, but of that anon.

Ah! commencement day is well named, it is but the beginning of a greater day—a day that has its clouds and brightness, its nights of despair and anxiety, its sunlight of clear conscience and knowledge of duty performed; this greater day has far more radiance in it than gloom or darkness, remember that. Real battles of life begin with the young man

as soon as he grasps opportunities presented to him. I am not taking into account worthless young men, for many, I am sorry to say, enter the medical profession that are useless to any profession, I was going to say, I mean they are useless to any calling, and only degrade the profession of medicine, I refer only to the man who is ambitious and industrious, qualities that are not picked up, but qualities that are congenital and such qualities that if encouraged will win in any battle of life. Give me an ambitious man, with industry as an accompaniment thereto, and you watch that man and he will thrive as surely as the young tree with good roots will grow and bear abundantly.

As I look to the professions of law and of the ministry I do not find the same restrictions thrown about their novitiates as I do in medicine. The young divine and the youthful lawyer have their own battles. Do not understand me to say that medicine is the only calling where hardships are to be encountered, neither understand me to be pessimistic, for were I so I would leave this profession and take up what I could thoroughly enjoy. Every calling has its trials, and every one its battles, but the question I bring before my readers is the trials and battles of the young man in medicine. I claim that the battles of the young medical man, living in the closing years of this nineteenth century, are peculiar to the time, day and generation, and belong especially to the young man in medicine. I am making no attempt to take up the battles of the young "homo" in law or the young ecclesiastic, but the battles and questions and conflicts that confront the young medical man, they are *sui generis*.

Men live and move in the age in which they exist. This may seem paradoxical, but how many men does one see in daily life that belong to an effete age, they live and move among the years that are gone and past. Again, we see men that are ahead of their age. Such men, and even women, (for the latter are no longer inmates of the kitchen, parlor and ballroom, but co-equal with man in intelligence, if only given the same opportunity). I say men and women we occasionally see that are ahead of their times. These are often called "enthusiasts," if not sometimes designated by the stronger though less elegant appellation of "cranks;" but by whom? By those who know less and speak more of the subject matter. But we always have a golden mean, and in this golden mean let the young medical man keep himself; let him live and move in this age, not in the past generation, nor in the coming, but live and move among the living and not among the dead, or among the unborn. Let us not belong to an effete age. Let us not be governed entirely by rules and codes dating from antiquity. Let us know and recognize our true position, as I will endeavor to point out as best I can.

To me then it does not seem paradoxical when I call upon young men to live and move in this age, and to recognize and grasp the questions and opportunities that present themselves to one's mind. Have you a mind of your own? Then use it. Exercise the functions God gave you. Stand firm on what you believe to be true. I ask you to look the questions of life "squarely in the face," grasp them, hold to them and solve them. They can be seen if you but keep your eyes open. If you do not see them it is because you keep your eyes shut and your head turned away; it is not because the questions of life are not before you—they confront every one. Neither is it because these questions are indissoluble. If you do not see them you will never dissolve them. Every-

thing can be dissolved ; even the noble gold will vanish under the quickening action of royal water (Aqua Regia). So with these questions of life, the harder they are to correct and conquer, the more valuable the solution, for it contains the original amplified, and you are the stronger.

I fear that this article will hardly be palatable to every one ; but what of that ? Who can please every one ? I write to the large army of young men in medicine, and to the larger army of the public stating that the young men in medicine are hedged about by restrictions placed there by elders and ancestors in the medical profession. Why waste golden days and years of youth. But *revenir a nous moutons.* What are these battles that confront the medical man at the close of the nineteenth century, and the beginning of the twentieth as well, for I believe these questions extend to the next century as well.

These life battles of the young man in medicine can be divided into four conflicts :

First. The battles of the young with the young.

Second. The battles of the young man with his elder brethren in the profession.

Third. The battles of the young man with the public in general.

Fourth. The battles of the young man in common with the rest of the profession against a growing dispensary abuse.

Taking these battles up in order, let us look to the battle between the young members of the profession, one with the other We see here that the young man has the most manful battle of all to fight, because he is then fighting with a foe that he sees. In the mad rush for an existence, for that is how I view life, the young have equal advantages and opportunities, for what one man has encountered, such will another encounter. What one man has overcome, that can also another overcome, if he but have the innate ambition and the necessary amount of industry. In the annual falling of seed to the ground, when nature makes attempts to reha bilitate the earth for the coming year, each seed has an equal chance to thrive and grow. Why do they not all grow and multiply ? Because some are crowded out by more vigorous and stronger ones, and the struggle for existence is well exemplified. I believe the battle of the young medical man, with his fellow young man, is like to that above, it is an open battle in most instances. The forces are arrayed face to face ; he sees the enemy and knows from whence to expect the attack.

I may be mistaken, but I think the young man in contending with his fellow young man has an open fight, for as yet the young man has not learned the "tricks of the profession," so to speak, although there be an adage, "tricks in all trades but mine." Yet the sarcasm is very apparent. I would not for one instant assert that the "young medico" is an "innocent abroad." Nay ! far be that from my purpose ; but he is young, and youth implies inexperience in the ways of the world, and the ways of the world play largely in the practice of medicine. I am loath to recognize (but my limited experience compels me) that this profession of ours carries more, much more, with it than the theory and practice of medicine. For example : A young man is a good student in his University class; is what all would say a perfect student, able to treat a case successfully in a hospital connected with the university. We will say he took the prize in Practice of Medicine, and from a theroretical and practical standpoint, can treat a case of disease as well as any one, and would have no larger or

smaller death rate than his professor would have; but, when graduated, does he have the chance? No, he has not had the experience, which, by the way, does not always go with caput alopœcia, or grey hairs. So, I repeat, there is much more in medicine than feeling the pulse and prescribing medicine according to the rules and laws from Professors Mat. Med. and Practice. How many men treat given diseases just as differently as they can, and yet, in spite of diverse treatment, the patient gets well, showing the *efficacy of medicine and practice.* How is it that our different schools of medicine thrive and flourish? How is it that every successful practitioner has his pet "Rp.", and yet they have the same success in treating diseases among the class in which they move. The public being ignorant of this fact thinks age means ability always.

Again, a young man might be ever so skillful as an operator in surgery, he can perform laparotomy or remove a limb quite as good as any one, but he must wait until whiskers grow and his hair either falls out or turns grey before the lay public gives him the necessary confidence. All these questions bear on the young man very heavily and it takes strength of purpose and fixedness of future aim to hold out to the coveted goal.

The battle of the young man with his fellow is a legitimate and lawful one, following the rules of morality and justice in most instances; the weapons used are equality and the one that survives is the fittest, looking at it from all sides and not from the one view of intellectual ability. That is why the order in active life is not the same order in the university life. Some may have, perhaps, barely passed examinations, yet are very successful in life, and *vice versa.*

So this leads us to a consideration of the second battle, that in which the young man enters the arena of life to fight against great odds, against his elders; against those practiced in all the artifices of life; against those that have been on the sands long enough to feel at home, and able to quench and subdue all adversaries. The young man must go to the arena of life clad as the warrior of old; he must have fastened tightly the helmet of knowledge in order that he might easily save himself when ignorance and boldness are arrayed against him, for often ignorance with boldness will put knowledge to flight, especially if knowledge be accompanied with lack of self confidence. In his hand he must carry the short, but sharp, sword of materia medica and therapeutics with which to slay the dragon of disease, and on his left arm must be strongly bound the shield of ability, not only to ward off questions by answers and insinuation against his youth and inexperience by replies, but this shield must hide all internal feelings and keep away extraneous influences that bear heavily upon every one, for the sick room must be lightened and brightened, and sorrow and gloom dispelled, even though the breast beneath the shield be a place of internal conflict of another character. There is nothing so deplorable as a sorrowful and melancholy physician. This shield of ability must present a glistening, shining surface; and lashed to his feet must be the sandals of activity and motion, ready to do the bidding of the wearer; and the young man must not forget that, above all, his loins must be girt about with ambition and industry. Clad thus he is able to cope with his elders, and though at times he may be worsted in the conflict by dishonorable means and tricky methods, the public will judge, as of old, by motion of the thumbs, whether he has made a gallant and honorable fight, and if he has, his loss will be temporary and his gain permanent, though possibly

somewhat future. Should you fall after a gallant fight look up from the sands of the arena of life to the populace about and you will see the thumbs turned in the direction that means your srfety, and the certain knowledge that though fighting against older and more experienced men in the artifices of warfare, you will surely succeed if you but fight valiantly and for the right.

So young men let us encourage one another to be always on guard, always ready, always prepared, and with your eyes as much behind you as before you, always open, always penetrating smiles for smiles sometimes cover scowls and scowls mean enemies. Always keep your sword of therapeutics sharp and free from nicks, and your shield of ability glistening and shining, and all corrosion absent, for in this warfare one needs all the faculties present. Read, study, be prepared ; on guard always.

In some conflicts your opponent may lay down the short sword of therapeutics and take the long curved simiter of *ethics*. Ethics plays a very large part in this second battle. Of a special code of ethics for medical men I have very little to say, for it seems to me the present code of medical ethics liberate the old and bind the young. If the Golden Rule was applied to medicine I think it ought to work just as well as in other callings of life. If medical men would do and say to one another as they would have them do and say, very little trouble would be experienced, I am sure. The simple question comes to my mind, how many observe the Rules of Medical Ethics ? and especially when applicable to a young man struggling for an existence. The young man starts out with the determination to observe the rules of medical ethics so far as he knows, and some fine day he finds a case taken out of his hands by insinuations and innuendoes from an older man who wants to "oust" the young man and feather his own nest. Young men watch your elders in ethical laws.

But this brings me, without further remark, to the third battle, that of the young man with the lay public, with its prejudices against him in many cases, with its ignorance of many conditions and circumstances of medical practice, and with its preconceived ideas about him ; but thank fortune some few are willing to treat him kindly, and aid the young man and help him along, and upon this class, to a large extent, the young man (of worth and ability mind you) builds his future career and reputation. But this battle with the public is one of a passive nature—it is wait ! wait ! (thanks to medical ethics) ; shine the leather on his office chair, and stamp the shoes off his horse s feet in the stable, if he is able by means outside of medicine to keep one. The young man must not do anything to lower the dignity of the profession. Oh ! no. What is honorable for young men in other callings of life is beneath the dignity of medical men. It is wait ! wait ! Seize an opportunity when it comes to you (if some older man does not take it away from you). You cannot engage in anything that would lower the dignity of the profession, such as business of any kind Making money is sordid. A medical man, especially a young one, is a little God all to himself—he feeds on the nectar of the Gods and wears wings. Medicine he cannot supply to his patients unless he is strong minded—thanks that we have some strong minded enough to do it.

Advertise. Oh ! horrible ! He would be a quack if he merely stated his name, his office, and his office hours, and if he had a specialty and stated in one word what it was he would be censured by every one. The

elder man can advertise his hospital in glowing terms, lauding it to the skies, and he, the head, is not called down for any thing that is wrong. He can in the daily papers make mention of the wonderful operation he did yesterday. or the day before, or will do "next Tuesday," and that is all right, but let the young man put his name in print and he is a charlatan, and an empiric. Verily, the rules of ethics bind the young and liberate the old. And this is another battle that the young man has to fight with his elders and with the public.

In his battle with the public the young man does get a case; he does all he knows what to do; his result is excellent, as good as any one could obtain. He is an angel in the eyes of the patient; he sends his bill, then he is like unto lucifer—he falls; for some of the public think the young man needs practice, and are willing to give him the practice, but when he wants money that is another thing. This class of the public employ the young man because they think it more economical than employing older men. This class generally pay by dribbles, and masses of abuse.

Again, a young man may be fortunate enough to be called to see a good family, and will be gratified that he has obtained an opportunity at last to make a reputation and distinguish himself, when some *older and more experienced* man is wanted. Everything is going nicely, patient doing splendidly, nothing unpleasant at all. The young man calls one day and is unceremoniously discharged without any cause whatever. Some may be kind enough to send you word not to come any more. Some may even be rude enough to let you ring and ring, or some shut the door in your face, or call from the upper window. Another battle for the young man with the public. The young man leaves with a puzzled look, and a more puzzled brain, as to what is the cause of his dismissal. It is the battle with the public prejudice. He must buy whiskers and shave his head so as to look old. The public does not always treat the young man as they would like to be treated themselves, and when a young man does receive considerate treatment, he is grateful even to egotism at times.

But this fourth battle—Dispensary Abuse. There is a listlessness among the medical profession generally, not only amongst the young men whom it affects the most, but amongst the older ones as well. I think the topic of dispensary abuse is one of vast importance, because it affects all classes and conditions of mankind. There is too much apathy among medical men generally in reference to this subject, and it is one in which every one that is endeavoring to earn a living should be interested. This fourth battle of the young man is a hard one, the hardest of all, because he fights not against flesh and blood, but against "charity," which in our dispensaries of to-day is a mockery, and includes under its capacious wings all classes, kinds and conditions of mankind. The young man must fight with his hands tied by superiors. The young men that fight this foe where the foe is existing and living, namely, in a dispensary, have their hands tied so tightly by superiors that they can do nothing but object. Should this evil be left to the young men, the hospitals would be made smaller instead of being made larger. The hospitals would be made self-supporting instead of being a burden on the city, or State, or Christian denominations, and people inclined to charity. Why build additions to hospitals when, as they exist already, there is more room than needed for the poor. If hospitals insist on treating all that come, why not make them pay the support of the hospital, and not be begging dona-

tions from charitably inclined persons, and weak political State legislatures, and putty-like city councils.

Do not the young men of to-day see that the hospitals and free dispensaries are treating the very class of people that belong to them, and that they should treat. Dispensary reports increase in the number of patients treated year by year. The poor are increasing according to hospitals and their reports. This question to my mind is of vital importance, for it is undermining the very foundations of society, not only medical society; and as the foundations are so necessary to the superstructure of reputation, I say young men awake to the question and say what you think and stick to what you say you think. Do not only say it to a friend, but say it to the world; let every one know what you think. If you think the dispensary abuse is not undermining your future, why say so, and give your reasons, and no one will be more willing to be shown their error than the writer.

I think the reputations of young men are built largely upon his work among the middle class of society, which is by far the largest. I mean the class that work for their living in one way or another. The pauper class is small as compaired to the middle class, but the pauper class is increasing and are the medical men of to day responsible for it?

Young men suffer most by the dispensary abuse, because the dispensaries are governed by elder men with sufficient practice, built years ago, when this question of dispensary abuse did not exist. These elder men can see this dispensary abuse and do nothing to correct it. Plain words, but that is the *status quo*, as I see and observe it. The men in authority in free dispensaries see the abuse, agree that it exists, agree that it should not exist, agree that it should be stamped out, and yet it goes on and flourishes. Plain words and no mistake. Where does the blame chiefly rest? On the *authorities of the free dispensaries.*

Young men are afraid to speak out. Why? Because a thousand gaping mouths are ready and anxious for the paltry, small, menial position they hold in the dispensaries. Speak out, and should your resignation be asked for cheerfully give it; but face the foe and fight the battle. Pick up the gauntlet and let every one know you resigned rather than yield your convictions, or retreat by withdrawal of your belief. If the young men in any dispensary should say that *they* would not permit the abuse it would not exist, because the young men do the work and the older ones obtain all the credit. Oh! if the active, energetic young men would only see the power in their hands and use it, how long would this evil exist that is grinding them down. How long will the day of medical starvation be postponed? Be sure it will follow closely upon the days of stagnation and indolence.

I wonder how long young men will stand such a condition of affairs? I wonder if the abuse will ever be corrected? I wonder if in ten years from now there will be such a thing as a general practitioner riding about in his carriage? I wonder if in the future we will not have a free outdoor department, with doctors like telegraph boys ready to hop on a bicycle and ride to the call that has just come in for attention? I think many would hold their hands in holy horror if a prophet was to prophesy the future condition of affairs. If the abuse grows and continues it will not be the fault of the few men who have endeavored to arouse the profession to its needs, but the blame will rest upon you my readers and hearers.

One man can do much, two can do more, and a few together can do wonders if they will only have fixedness of purpose.

Young men awake to the fact that you must look to your foundations. Now is the time; if delayed you will find your future reputation and living washed away by the waters of imposition and false charity. Some will say that young men expect too much; they expect to reach the top of the ladder at one bound. Oh! no. What young man can do that even though he does expect it. But how can a young man get to the top of the ladder when the generation preceding him has attempted, or is attempting to pull out the very rungs of the ladder that they themselves ascended upon. They reach down and take out the rungs they have just left and think the standards and sides of the ladder good enough for the young. So it becomes a pole climbing match instead of a ladder ascension. The young man asks no more than his elders, wants no more, and if given the same advantages and opportunities that his elders had can do equally as well. Are the elders afraid the young may mount too quickly? May be!

I have endeavored to give some of the questions that confront the young man in this age and generation, and present this rather as an incentive for others to study the questions that apply to our profession. I fear we too often think that we should only speak on some new remedy, or some new disease, or some remarkable achievement, and forget the social and economic questions of the day as they pertain to us as a body. Let me urge upon all to observe, study, write. Write what you think, and by that means a concensus of opinion can be obtained.

327 N. Charles Street.

Primary Tuberculosis in Relation to the Middle Ear.

By Edward J. Bernstein, M. D., Baltimore, Md.

Middle Ear Sequelæ are far from rare in Tuberculosis. Indeed, on the contrary, it is relatively frequent. and especially as the forerunner of the finale of the general infection. Just what p. c. is so affected it is difficult to say. Fraenkel found 29 pathological changes in the ear and nose in 50 phthisical patients, (8) eight of which were confined to the ear. Moldhawer based his opinion that otitis media seldom occurred in tuberculous patients, on the fact that the register of Leipsic-Klink showed that but 28 out of 294 post mortems in tuberculosis were complicated with ear symptoms, and but 7, or 9 per cent., of these permitted an undoubted diagnosis of tuberculosis of the ear.

Even this relatively small per cent. amounts to a vast number, when we consider the enormous mortality from this affection. But tubercular otitis media is not limited to the last stages. We find it in every period, and I am convinced, if carefully looked for, we will find a considerable number in which it is the primary condition.

True it is that we find it mainly in the well marked case of general infection, and it is a frequent expression of the tubercular cachexia which inaugurates the terminal stadium. Often it begins at the time when diarrhœal stools proclaim the march of the disorder into the abdominal organs.

The clinical picture of tubercular otitis differs so markedly from

simple inflammatory troubles, and is so characteristic, that under ordinary conditions we can at once declare its peculiar nature.

Not every otitis in a tuberculous individual can be looked upon as tubercular. We are only justified in forming this conclusion when the ear drum is seen to rapidly decay under the process, and notwithstanding the most painstaking care and guarded sounding, we see the mucous membrane covering the internal wall actually melt away, exposing the bone forming the promontory; and when in the purulent discharge we can demonstrate the bacillus tuberculosis.

Failure to find these latter is, however, not an evidence of its non-tuberculous nature, according to Haberman and Politzer, for the former failed to discover them in some histologically proven tubercles which he had removed from a ear.

Nathan (Deutch. Arch. fur Klin Med., Bd. 35) found them, however, in the secretions of otitis media in phthisical patients, and besides this in many cases of caries of the ossicles and of pars mastoidea.

One should always try to find the bacilli in every suspicious case, as it is of undoubted value in the prognosis. Notwithstanding a negative result does not exclude, nor the actual presence of the bacilli is not, per se, conclusive of its tubercular origin. In general the evidence of their presence in the ear is always a grave prognostic sign.

The membrana tympani may succumb primarily to the tubercular affection. We see forming here small grayish-yellow-red elevations in the drum itself. There are, however, but slight subjective symptoms, and the adjacent portion of the tympanum participates but slightly in the inflammation. At most these elevations are from one-fourth to a half millimeter in diameter. These rapidly undergo degeneration, and in consequence we have numerous perforations of the tympanum, forming what Gruber and Troltsch call the sieve-like drum. With this we may have only slight alterations or decrease of hearing. The only other disease in which these sieve-like perforations occur is diphtheria. Here the general clinical picture is so different that no room for doubt occurs.

Instead of finding these multiple nodules, we may have one or two larger greyish-yellow elevated spots, as shown by Schweitzer (Chirug. Krankh. des Ohres., p. 124). There will be seen with this, a reddish-gray, a yellowish-gray. and also, aceording to Schweitzer, a yellowish-red discoloration and swelling of the surrounding tissue, in which the contour of the mallens handle is hidden and we lose sight of the finer superficially lying capillaries. These spots, varying in number from two to four, usually shoot up simultaneously, or, as seen in several cases, in rapid succession, and manifest themselves after a perforation is formed in the lowermost portion of this efflorescence by an extraordinarily destructive tendency, so that in a relatively short time we have two or three large perforations through which we see the pale reddish yellow mucous membrane of the promontory. These perforations are separated from each other by small bridges of tissue, which are in time also lost, converting the perforations into one large, or at most, two large perforations of the anterior and posterior halves of the drum, separated from each other by a bridge of tissue running from mallens tip to the annulus.

Pain is almost always absent during these changes, and the loss of hearing varies, rarely assuming a high degree so long as the ulceration partakes only its tubercular character.

This form of myringitis, which, like all other forms of tubercular middle ear inflammations, are usually found in those well marked and advanced cases, and may occur quite independently, should not be confounded with other forms of tubercular middle ear suppurations, which show similar typical changes in the ear drum, but show a peculiarly characteristic group of symptoms. The earliest symptom of this form of myringitis is subjective noises in the ear. Frequently this is nothing more than a sense of fullness, occasionally accompanied by considerable loss of hearing. This is, however, rarely of sufficient gravity to direct the patient to the aurist.

Should we have the opportunity here, to examine the case at such an early stage, we will be struck by the remarkably wide and large meatus. This seems to be caused by the absorption of subcutaneous fat. The skin lining it is hard, pale and dry, and patients complain of constant desire to scratch this ear.

We find in the posterior and superior portion of the drum, and the immediately adjacent portion of the wall, a slight redness which, in a few days, at most a couple of weeks, extends to the whole tympanum and posterior, superior wall of the meatus. The trouble drags along until one day, without any pain or further warning, we are surprised to find a discharge from the ear. This is in marked contrast to the extreme agony preceding rupture of the drum and the relief consequent thereupon in simple inflammatory trouble. So it happens we are consulted only when otorrhœa is firmly established.

It is curious to note that the left ear is attacked by preference, possibly because the left lung is most often affected ; and while usually unilateral it often enough is bilateral.

In as much as ear complications are most frequently attendant upon the latest stages of the general affection, we should expect nothing more than deafness should rapidly ensue ; the otorrhœa should not cease, that the process should be painless but persistent, and under it the patient rapidly passes away.

Occasionally it may be the actual cause of precipitating the end. During a violent coughing spell, suddenly and without warning, a stream of light red blood is found gushing from the ear, and the patient becomes exsanguimated before relief can be given. In such a case the carotid will be found to be eroded by the suppuration, or a small sequestrum has been forced through its wall.

Joly (Canstats. Jahrbuch., 1886,) in eight cases of erosion of the carotid found six of them of tubercular origin. Naturally these are not complications of the primary trouble. As already intimated Tubercular Otitis Media is essentially obstinate, and Bezold classes it as a chronic affection even from the start, as its tendency is not to heal permanently in spite of all that can be done, and this applies of course with greatest force to tuberculosis in its last stages.

Should suppuration occur early, at least temporary relief, even to closing of the perforations, may be expected, provided the case is understood and proper remedies employed. It must be admitted that relapses are to be looked for, and then with greater destruction of tissue.

Bezold still holds to the dry boric acid treatment, except where contraindicated by boric acid eczema. It is understood, however, that boric acid is not to be packed in the ear as has been taught. Yet nearly every

one else finds it contraindicated in all cases of tubercular otitis, and get better success with the specifically anti-tuberculous remedy, Iodoform, or Bals. Peru ; these have been the only remedies which have been at all successful in my hands. Haug goes so far as to claim for Iodoform a differential diagnostic power, ranking it above tuberculin and other serum diagnostic therapy.

These clinical pictures are alike for the primary as well as the later secondary inflammations, differing in nought but the apparently very variety of the primary form.

I call your attention to two examples of this primary tuberculosis occurring in my private practice.

In January, 1893, Mr. L. H., merchant, age 33, came to me complaining of an objectionable noise and fulness in the left ear, which had been annoying him for several days, but giving him no pain. He had been bothered more or less for a considerable time before this, with a constant itching in the canal.

On inspection the drum was not found to be depressed, or markedly reddened, as we see in acute simple myringitis. There was a slight line of redness on the posterior and superior portion of the drum and the adjacent part of the meatus. This I thought might possible be due to his efforts to relieve the itching by scratching. An emollient and pollitzerization gave little relief. Next day the redding had extended in both directions. Then I noted the abnormally wide and dry meatus. The patient's general health had been good. He was 5 feet 10 inches, and weighed 150 pounds. His father died of tuberculosis at 50—no other relative so affected. Despite all my efforts the drum went from bad to worse, and in four days broke down in three places, where there had been reddish gray elevated spots. The appearance was characteristic, and as there had been no pain, I felt confident of its nature. Accordingly I examined the secretion for the bacilli in the usual manner, and found a number of them. The drum seemed actually to melt away, almost under my eyes, and soon there were three large perforations, two of which soon coalesced and were separated from each other by a band of tympanic tissue, After ten weeks of treatment the suppuration ceased for a time, only to break out again after some slight exposure.

Meanwhile the left lung became involved. There is no question that his lungs were quite free from any infection when he first presented himself for treatment, nor could I discover any other signs of tuberculosis. The myringitis was undeniably the primary infection.

A type of another variety was the following :

Mr. G. A. had been under my treatment for his refraction and ocular muscular asthenopia. While under my care I was asked to examine his left ear, which had been annoying him for a day or two. There was no pain, but merely an uncomfortable feeling.

Very careful examination showed an elevation about one-fourth m.m. in diameter, in the posterior-inferior quadrant of the tympanum. Except immediately surrounding this nodule the tympanum was quite pale, meatus wide, skin dry and itching.

He had been bothered more or less with this itching for some months past. In two days there appeared three more nodules in other segments of the drum. These rapidly underwent degeneration, presenting the sieve-like appearance of Gruber. The perforation rapidly extended in size and

resisted treatment for a long time. Examination for bacilli on several occasions was always negative. Finally the discharge ceased, but the perforation would not heal despite every endeavour. To aid the hearing I inserted one of Gruber's linen drums, which remarkably improved the hearing.

This patient had also been in excellent health, with no sign of tubercular trouble. He was quite devoted to out door exercise. Indeed it was an indiscreet exposure, at an athletic exhibition in which he was taking part, which finally resulted in an illness which his family doctor diagnosed typho-pneumonia, but which was unquestionably tubercle pneumonia. When he recovered sufficiently to leave his home, he came to see me for his cough. I turned him over to my friend Dr. John R. Winslow, who pronounced his condition tubercular phthisis of the left lung. His sputum showed numerous bacilli. Notwithstanding this he had gained flesh rapidly since he left the sick room. Within the month he called my attention to his right ear. Here I found the yellowish-red infiltration of the drum, which soon hid from sight the mallens handle. There was some little loss of hearing, but no pain. The patient left Baltimore soon after, but I feel sure this drum will soon be lost, as is usually the case.

It may not be amiss to give this rapid method of staining for bacilli. Cover glasses thus prepared may be sent to some laboratory for examination. In this manner every physician can obtain a diagnosis of his case without sending the sputum or ear discharge direct.

A drop of the substance is placed between two cover glasses, which are then drawn apart with the *clean side down*. The glass is drawn rapidly two or three times through the flame of an alcohol lamp. Then the glass is laid in a solution of fuchsine (R. fuehsine rubin 1.0 alcohol, absolut. 10.0, aqua carbolic 90.0—filtra) with *clean side up*, and allowed to swim in the solution for two minutes, so that the solution shall thoroughly stain the covered side of the glass. Now with a pair of forceps remove the coverslip and hold it with the *clean side down* over the flame as long as moisture or vapors arise; the covered side is then stained an intense red. The glass is now placed in nitric acid—alcohol sol. (acid nitrici 1.0, alcohol 10.0) for three minutes, then taken out and washed in distilled water. After this it is placed in a watery solution of methylin blue for two minutes. Then wash in water and dry by laying it on filter paper. When dry a drop of Canada balsam is dropped on the stained surface and turned over on glass side. Bacilli are seen red in blue back ground.

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Evolution vs. Special Creation.

By P. Daugherty, M. D., Junction City, Kan.

What we mean by evolution is that the various species of Fauna and Flora of any age are the modified descendants of those of a previous age, and the ancestors of those of a succeeding age. What we mean by special creation is, that the various species of Fauna and Flora came into existence suddenly, and without ancestors, by the fiat of God. The last hypothesis belongs to a family of beliefs originating in the childhood of the human race; the folk-lore of prehistoric man.

The early ideas of mankind have always proven to be false ideas, or at least to contain only an infinitismal amount of truth. Had it been otherwise there would have been no discovery, no increase of knowledge, no progress. Herbert Spencer tells us that progress is the bringing of thoughts into harmony with things. Every science furnishes an abundance of illustrations. Greek mythology teaches us that primitive notions in regard to the heavens were wrong, and the notions that replaced them grew less and less wrong. The super-natural wonders in the countries about the Mediterranean with its giants, ogres, harpies, gorgons, &c., was destroyed by the maritime life and geographical discoveries of the progressive Greeks.

The time-honored wonders that had been glorified in the Odessey, and sacred in the public faity, were found to have no existence. As a better knowledge of nature obtained the blue vault over head proved to be an optical illusion, and instead of the "floor of heaven" there was nothing above but stars and space.

The original belief in regard to the form of the earth was false, and this false belief survived through the first civilizations and was heroically defended by the church. The early ideas in regard to the solar system was false, and this idea held sway until the time of Newton. The telescope finally demonstrated the fact that our solar system is a product of evolution, by showing that our little earth is the child of the sun, and that our moon is the grand-child of the sun.

Early ideas in regard to the nature of the elements were false. Early ideas in regard to chemical facts, of meteorological facts, of physiological facts, of anatomical facts, of pathological facts, and of etioiogical facts, were all false.

Early ideas in regard to the government of the universe, were false. It was a belief in special interventions. To this belief the clergy held on to with the tenacity of a drowning man to a straw. The Roman priests foretold future events by oracles, omens, and by inspecting the intestines of animals, and sacrifices to propitiate the Gods. In Christian times the priests claimed that by their intercessions they could regulate the course of affairs, averting dangers and securing benefits. Their God, like the Roman's, was one who could be swayed by flattery. But their superstitions gave way before the logic of Kepler, Da Vinci, Galileo, Newton and Herschel. Kepler discovered the laws that preside over the solar system. Da Vinci layed the foundations of mechanical philosophy. Galileo discovered the fundamental laws of dynamics ; Newton applied them to the movements of the celestial bodies, and showed that the solar system is governed by mathematical necssity; and Herschel extends that conclusion to the universe. In all these cases men set out with beliefs that was absolutely false, and stuck to them with a tenacity worthy of a better cause.

Now, as we said in the beginning, the hypothesis of special, miraculous creations belong to this family of early beliefs, and like them is false when we come to examine them in the light of science. If the ideas of primitive men were false in so many other things, would it not be a very remarkable thing to find them correct in this? It is not only a belief belonging to an extinct family, but a belief that is not countenanced by a single fact. The idea of evolution, unlike that of special creation, does not belong to an extinct family, and did not originate with ignorant primeval man. The facts of evolution was brought to light in better instructed

times, and was discovered by the greatest thinkers of the age. The deri vation of evolution is as favorable as that of special creation is unfavorable. Special creation belongs to a family that, among naturalists at least, is extinct; evolution belongs to a family that is rapidly multiplying.

The limits of a paper of this kind prohibits me from even hinting at all the facts in proof of evolution. I presume that most physicians have read the works of Charles Darwin and Herbert Spencer. In the last fifteen years a number of general works on evolution has appeared, among the most important of which is the "Law of Heredity," by Dr. W. K. Brooks, and the "Origin of the Fittest," by Prof. E. D. Cope.

At the New York meeting of the American Association for the Advancement of Science, Prof. Edward S. Marse, in his Presidential address, says: "There are two points to be emphasized here in closing: One is that *American biological science stands as a unit for evolution;* and the other is, the establishment of a great generalization, which shows that when intelligence became a factor in animals, if was seized upon to the relative exclusion of other characteristics."

Prof. David Starr Jordan, in an address delivered before the Chicago Institute a few years ago, in a course on the Testimony of Science in regard to evolution, says: "The old idea of a species as a separate entity, a special creation, has passed away forever. We can no more return to it than Astronomers can return to the Ptolemic notion of the solar system."

The same lesson comes up from every hand. It is the common experience of all students. We have learned it from Gray, and Engleman, and Coulter, and from each of the many students of American botany. We have learned it from Baird, and Allen, and Cones, and Ridgeway, and Stejneger, and from all who have made life-studies of American birds. We have learned it from Cope, and Marsh, and Leidy, and from all who have searched the rocks for the bones of our ancestors.

To a naturalist it may seem well-nigh profitless to discuss the question of evolution, since the battle has been won, and if there be any discussion it is as to the relative merits and force of the various factors involved. Herbert Spencer, in his masterly work on Biology, gives arguments in favor of evolution from classification, from embriology, from morphology, and from distribution, and shows that each is perfectly explicable upon the theory of evolution. But that each is absolutely inexplicable upon the theory of special creations. Space forbids me giving illustrations from each, but I cannot resist giving one or two in embryology. "A tree differs from a seed immeasurably in every respect; yet is the one changed in the course of a few years into the other; changed so gradually that at no moment can it be said—now the seed ceases to be, and the tree exists. What can be more widely contrasted than a new-born child and the small, semi-transparent, gelatinous spherule constituting the human ovum? The infant is so complex in structure that a cyclopædia is needed to describe its constituent parts. The germinal vesicle is so simple that it may be defined in a line. Nevertheless nine months suffice to develop the one out of the other; and that, too, by a series of modifications so small, that were the embrio examined at successive minutes, even a microscope would with difficulty disclose any sensible changes. Aided by such facts, the conception of general evolution may be rendered as definite a conception as any of our complex conceptions can be ren-

dered. If instead of the successive minutes of a child's fœtal life, we take successive generations of creatures—if we regard the successive generations as differing from each other no more than the fœtus did in successive minutes; our imagination must be feeble if we fail to realize in thought, the evolution of the most complex organism out of the simplest. If a single cell, under appropriate conditions, becomes a man in the space of a few years, there can surely be no difficulty in understanding how, under appropriate conditions, a cell may, in the course of untold millions of years, give origin to the human race."

But the sceptical and the uninformed wants the "missing links." Thanks to the progress of paleontology we are now able to furnish many. Prof. Edward S. Morse tells us that "great gaps are being closed up rapidly; but the records of this work, being published in the journals of our scientific societies, are hidden from the public eye as much as if they had been published in coptic. So rapidly have these "missing links" been established that the general zoologist finds it difficult to keep up with the progress made in this direction.

Prof. Cope says: "Those who have during the past ten years devoted themselves to this study, have been rewarded by the discovery of the course of development of many lines of animals, so that it is now possible to show the kind of changes in structure which have resulted in the species of animals with which we are familiar as living on the surface of the earth at the present time. Not that this continent has given us the parentage of all forms of animals with skeletons, or vertebræ, but it has given us many of them. To take the vertebrata, we have obtained the long-since extinct ancestor of the very lowest vertebrates. Then we have discovered the ancestor of the true fishes. We have the ancestor of all the reptiles, of birds and of the mammals. If we consider the milk-givers separately, we have traced up a great many lines to their points of departure from very primitive things. Thus we have obtained the genealogical trees of the deer, the camels, the musk, the horse, the tapir, the rhinoceros, of the cats and dogs, of the lemurs and monkeys, and have important evidence as to the origin of man."

The missing link between birds and reptiles, two classes of vertebrates the most widely separated of any others, have been completely filled in the mesozoic fauna, by birds which have reptilian characters on the one side, and reptiles which have ornithic characters on the other. The continual diverging characters of individuals and varieties is surely producing organisms so unlike their ancestors that zoologists class them as distinct species.

Linnaeus published his Systema Naturæ in 1758, treating of all the species of animals known at that time—some four thousand different kinds. But for every species known to Lannaeus at that time, more than one hundred kinds are known to the zoologist of to-day. The Zoological Record has been published yearly in London for the past twenty-five years. Each volume contains the names of species, new to science, discovered during the year; and Prof. Jordan tells us that each year we find the names of two or three times as many as are mentioned in Linnaeus' "Systema Naturæ." Yet no man has ever seen a special, miraculous creation—an organism without ancestors! Man carries within him indubitable evidence of the line of his descent, in his rudimentary organs, and he who sneers at evolution, reveals in that sneer, the line of his descent

by showing his canine teeth. Special creationists stand dumb in the pre sence of man's rudimentary organs, while evolution explains them all.

The church is the implacable foe of evolution, as it was of astronomy and geology. In the language of Dr. John A. Rider (see American Naturalist, vol. 13, page 12): "Judging by centuries of experience, as attested by unimpeachable historical records, it is safe enough for an intelligent man, even if he knows nothing about the facts, to accept promptly as truth any generalization of science which the church declares to be false, and conversely to repudiate with equal promptness as false any interpretation of the behavior of the universe which the church adjudges to be true.

In proof of this sweeping statement one has only to read the imposing collection of facts brought together by Dr. White, the distinguished ex-President of Cornell University, which is embodied in his work entitled "The Warfare of Science." One then realizes the lamentable but startling truth that without a single exception, every theory or hypothesis, every discovery or generalization of science has been bitterly opposed by the church, and particularly by the Catholic church, which resists, and, as Prof. Huxley says, "must, as a matter of life and death, resist the progress of science and modern civilization."

Let me say in conclusion, that there is not a naturalist in the world, to-day, of any distinction who entertains the old notion of the miraculous creation of species.

A Case of Abscess of the Hip, Probably Tubercular, with an Unusual Complication.

By Edwin M. Cox, M. D., of New York.

The case which I am about to describe briefly belongs to a class, examples of which are seen often enough, but in this case the chief complication is sufficiently rare. I think, to make the case interesting, it will be better, perhaps, to give a clinical history of the patient at once, and discuss the case a little later.

The patient was a boy, aged 15, of German parentage, with a good family and personal history. He had never had rheumatism, had had no contagious disease, and had never had any pulmonary, renal, or cardiac symptoms. There was no history of tuberculosis in his family. I saw him first on August 15th 1893, and for about three weeks previous to that time, he had been suffering from symptoms referable to his hip which I will briefly describe. On July 23rd the boy began to have pain in his left thigh referred especially to a point in Scarpa's triangle about one and one-half inches below Poupart's ligament. Motion increased the pain, and he had at the same time such general symptoms as headache and general malaise. He had no chill. No history of tranmatism could be obtained. The local symptom became steadily worse and in a few days the patient was compelled to go to bed. The pain was greater in severity and was felt behind over a considerable area on the posterior aspect of the thigh, where there was also tenderness rapidly developing. The boy was first seen by a physician on July 30th, and carefully examined. He was well nourished, and of good color. While lying on his back, the left thigh was held in a position of moderate flexion, and

rotated slightly inwards, there was moderate fulness in the lower part of Scarpa's triangle, and the same condition a little higher up, behind. There was a point of marked tenderness in Scarpa's triangle and another behind at a point midway between the great trochanter, and the tuberosity of the ischium. The boy's temperature at this time was 102°:6, and his pulse 128. There was no evidence of any kidney complication. Measurement of the thighs at corresponding levels showed that the left was one inch larger than the right, and it was noted that complete extension of the thigh caused lordosis. During the period from August 1st to August 15th, the patient's symptoms did not materially change as far as local conditions were concerned, though the fulness was somewhat increased and the tenderness became more marked. The temperature varied between 98° and 102°, the low temperature occurring in the mornings and the high temperature in the evenings. By Sept. 7th a very considerable fulness had developed on the posterior aspect of the limb below and internal to the great trochanter, and this swelling was tender, and fluctuated. The tendency to flexion and inward rotation of the hip had been corrected by an extension apparatus. Two days after this the boy was etherized, and two free incisions made into the abscess, one on the postero-internal, and one on the postero-external aspect of the thigh. A very considerable amount of rather thin pus, and one very small sequestrum were evacuated, and the cavity, after cleansing, treated with iodoform gauze packing. The source of the necrotic fragment could not be discovered, nor could any connection between the abscess and the joint be demonstrated. The focus from which the trouble started seemed to have been extra articular, and judging by the presence of the sequestrum, osteal. The action of the joint continued smooth. There was no reason to believe at this time that the case would behave any differently from others of the same nature, but on Sept. 16th the dressing was found soaked with a moderate amount of fresh blood. This ceased when the wound was repacked. During the night of Sept. 23rd, there was a recurrence of the hæmorrhage, somewhat more severe, and when I saw the boy some hours later the bleeding had stopped, but he had felt his loss of blood, and required stimulation in consequence. He rallied promptly and had no more trouble until Oct. 6th when there was again a loss of blood, moderate in amount, and stopped by repacking the sinus. The source still remained in obscurity, and up to this time, I had not been at hand when the bleeding had occurred, and so had been unable to make a satisfactory examination with the finger, as I did not think it advisable to run the risk involved in removing the packing soon after a hæmorrhage merely for the sake of an examination. Each time it was hoped that the hæmorrhage would not occur again. At this date, the internal incision had practically closed, and the external opening consisted of a sinus large enough to admit the index finger, running inwards and upwards behind the neck of the femur. At noon on November 2nd, there having been no trouble for two weeks, a very severe hæmorrhage occurred. The blood was arterial as I could convince myself, happening to be near at the time. The patient was much reduced by the occurrence and his pulse became very rapid. With the finger introduced into the sinus as far as possible upwards and inwards around the upper part of the shaft of the femur, a soft pulsating tumor of rounded outline could be distinctly felt. From the most prominent part of this mass a small stream of blood could be felt springing

from an opening in the sac, and this was evidently the source of the trouble. It could not, at that time, on account of the inflammatory changes in the region, be definitely determined whether the aneurismal dilatation involved the superficial femoral artery, or the profunda, but from the position of the sac, the latter vessel was thought most likely to be the seat of the trouble. The only safe way of treating the condition was, in my judgement, immediate ligature of the vessel above the dilatation, and this course was decided on. As soon as the patient could be got ready, he was given a little chloroform, and with his sinus temporarily tightly packed, a short incision was made over the femoral artery just below Poupart's ligament and the femoral vessels thus exposed. A rapid examination showed that the superficial femoral artery was not the seat of the difficulty, and a little more dissection gave access to the profunda. An examination of this vessel showed that from its posterior wall there arose a sacciform dilatation about one inch in diameter, situated a very short distance below the bifurcation of the common femoral. This dilatation protruded into the sinus cavity and formed the mass felt by a finger inserted into it. Compression of the trunk of the profunda stopped pulsation in the sac, and made it flaccid. I at once tied the artery close to its origin and divided it between two ligatures to relax tension. Cat-gut was the ligature material used and the wound was rapidly closed without drainage. When the boy was removed from the table his pulse was 160 and weak, and his general condition bad, but under active stimulation his condition improved somewhat. Next morning his pulse continuing very rapid (160 170), I made use of saline infusion into the median basilic vein with gratifying result, for the boy's pulse became slower and stronger and his temperature fell somewhat. During the afternoon the patient had a chill and a rise of temperature (103°), both of short duration however. In the next few days there was continued improvement in the general condition of the boy, and very soon extension was again applied to the leg to counteract the tendency to a bad position. The wound made for ligating the artery healed *per primam*, and the sinus diminished in size slowly. On December 1st the boy began to walk about on crutches and eventually his sinuses healed and he had a useful limb, though with some painless limitation of motion at the hip. Of course in such a case there is danger of further trouble in the bone with perhaps re-opening of sinuses, or further abscess formation. But the orthopædic aspect of the case is of less interest than the condition of the artery. A very great gain in the general health and in weight was got by the use of cod-liver oil and iron.

The clinical history of this boy leads me to believe that his abscess was not of the purely tubercular type, and I regret that no bacteriological examination of the pus was made, for I feel sure that such an examination would have disclosed the presence, in addition to tubercle bacilli, of other and more active infective organisms. The local process seemed to me to be too rapid in its development to depend entirely on the presence of the *bacillus tuberculosis*. The partial destruction and the weakening of the arterial wall may have, to my mind, been brought about in one of two ways. In the first place, the inflammatory process in and around the abscess may have been intense enough to have caused suspension of the blood and lymph supply of the tissues chiefly connective, in and immediately around the arterial tube, and thus to have given rise to almost im-

mediate destruction or absorption of those tissues, with the consequent opportunity for aneurismal dilatation, by the stretching of the remainder of the arterial wall. Or. again, in the second place the arterial wall, though intact at first, may have had the vitality of its outer coats interfered with and destroyed later, by changes in the neighborhood of the vessel dependent upon cicatricial formation and inflammatory condensation and the development of pressure and tension in unaccustomed ways on tissues not prepared to resist such processes, There is always more or less such tissues change in the wall of an abscess cavity which has existed any time. A third possibility which I believe, however, to be remote, is that there may have been a suppurating focus in the wall of the artery which weakened that wall. I believe that there was no disease of the vessel from any cause arising in its wall. When once the diagnosis was made, I think that there was no form of treatment to be considered other than ligature of the vessel. The erosion of a vessel by suppurative process, and the occurrence of hæmorrhage is common enough, but I think that the formation of a well marked aneurismal sac under such circumstances is unusual.

8 West 33d Street.

Puerperal Sepsis.[1]

By Dr. Frank T. Meriwether, U. S. Army, Retired, Asheville, N. C.

With the brief time at my disposal this evening, it will be impossible to discuss the history and literature of this dread disease, however interesting and instructive it may be, nor will I be able to elucidate many points in its study which are of importance; but I hope to be able to place before you some remarks upon it in such a way that the discussion following may induce all present to give their views, and so possibly bring out something of value to every one.

The term puerperal fever, childbed fever, etc., as formerly applied to this disease, was unfortunate, insomuch that it apparently made of it a specific, distinct disease, and one limited to the puerperum. In a limited sense this is true, but nevertheless, pathologically speaking at least, sepsis of the puerperal period is in nothing different from sepsis occurring at other times except as to its period of occurrence and location of its points of infection, and, of course, in its peculiar manifestations.

So speaking generally surgical sepsis and puerperal sepsis are virtually but different phases and manifestations of the same disease. We may, however, distinguish between a true sepsis occurring during the puerperum and a septic intoxication occurring during a like period, or what is sometimes termed sapremia. I shall discuss these two together, however, for clinically they present themselves apparently as different phases of the same disease, though their differentiation is very important, particularly as to prognosis and treatment.

It is undoubtedly a fact that in true puerperal infection or sepsis, we have an infection of the uterine tissues by the streptococci pyogenes, at times associated with the various putrefactive orgsnisms, but a true sepsis means an infection by the streptococcus.

1A paper read before the Buncombe Co. Med. Society, Asheville, N. C., April 6th

In a limited number of cases it has seemed possible that wounds of the perineum might have been the place of infection, but it is not so likely to be as the uterus, the avenues of entrance not being so plentiful. I will also say that a few cases of sepsis have been reported in which only staphylococci have been found.

The other form, that of septic intoxication, is caused by the invasion of the tissues by the organisms of putrefaction, and particularly frequent do we find the colon bacillus. In one case recently reported, nothing but the bacillus coli communis was found; but usually we find quite a number of varieties of the various putrefactive organisms.

In studies made upon the uterus of patients dying from septic infection, Bumme found the streptococci scattered through the entire walls, in many cases reaching to the peritoneum. Peritonitis usually occurs from the passage directly through the walls of the streptococci, morely rarely by the passage by way of the tubes. This explains why in many cases at autopsy the tubes are found perfectly healthy, with general peritonitis and pelvic localized abscesses. It is in true sepsis that we have so high a mortality rate, and in which treatment so often is of no avail.

In septic intoxication, however, we deal with a necrosis of the uterine walls limited to the decidua, the bacteria never penetrating the muscle; the intoxication being caused by the absorption of the ptomaines there generated. Peritonitis rarely occurs except possibly locally, and the prognosis is favorable, especially if the case is seen early and properly treated. In fact, even without special treatment, the tendency of the disease is towards recovery. General peritonitis, when it occurs, is due to the passage of putrefactive tissue through the tubes, and is not so fatal as the form seen in sepsis. In septic cases, from true sepsis, we almost always have a more or less general peritonitis, the cases in which it does not appear being the trombotic form of sepsis, in which the streptococci invade the walls of the veins of the uterus, pelvis, and sometimes even involving the vena cava. This is the form in which we have true pyeamia, with multiple abscesses.

The symptoms differ quite materially in septic infection as distinguished from septic intoxication, though occasionally one meets with cases in which it is almost impossible to differentiate between them.

The temperature in cases of intoxication jumps up suddenly upon the third or fourth day, with a pulse usually soft and full, ranging from 100 to 130 per minute, whereas in cases of infection the temperature usually rises gradually from the second day, ofted going above normal within 12 hours after labor, the pulse being, as a rule, very rapid, small and hard. In cases of true infection the lochia are slight or not changed at all, without an offensive odor; the uterus is firm and very tender, and sensitive upon pressure, the walls beins thick and indurated. In intoxication, however, the lochia are offensive, often extremely so, particularly if vaginal douches have not been used; the uterus is large and flabby, not tender as a rule to pressure, and its walls are thin. It is questionable whether one can certainly differentiate between these two diseases by the condition of the internal surface of the uterus, but in uearly all cases you will find in the truly septic cases that upon intra-uterine examination the walls are smooth and glazed, the necrotic cases presenting a roughened surface with a more or less general necrosis of the decidua, often with long shreds

hanging loose in its cavity. Even with the finger a large portion of this necrosed tissue can often be removed.

As to the contagiousness of puerperal sepsis, I will only say that all that is necessary is to implant a sufficient number of streptococci gathered from any source whatever upon a receptive soil during, before, or after labor.

I believe that all infection proceeds from without. I doubt very much the possibility of auto-infection, though it is a very kind shield for one to hide behind. It is possible that the vaginal canal may contain the pathological organisms, only needing the examining finger to pick them up and carry them up to the uterus, then to find a suitable place for entrance and infection, or the vaginal douche used after labor may dissolve the mucous containing them and sweep them upward to the uterus. Thus far, I think, auto-infection possible. But when one bears in mind the investigations made by Furbringer and others some years ago, demonstrating the frequency of the various forms of infective bacteria found under the finger nails, and the almost impossibility to render these parts sterile, it seems a wonder we do not have a larger percentage of septic cases.

This is the usual way infection occurs, viz.: by the examining finger of the accoucher. Few of us are careful in cleaning our hands properly when preparing to examine an obstetrical case; in fact, I am afraid that the profession, as a rule, look upon labor about as the laity do, thinking it a normal process of nature, and that everything should go right. I do not mean by this that I believe in meddlesome widwifery, for I think nature does her part of the work remarkably well, in spite of the doctor. It is stated as a fact that sepsis occurs much less frequently among the lower classes in the south, as compared with the same classes in the larger cities of the north, because of the fact that the midwives here do not, as a rule, make vaginal examinations; do not, in other words, infect their patients. These old women seldom, if ever, use the post-partum douche, while in the large cities, north and west, the midwives know just enough to be meddlesome, make frequent examinations, and use a douche after labor of water, with enough carbolic acid in it to "make it smell strong," as I once heard it expressed. A great many dirty men and widwives, dirty in the common sense of the word, may be free from pyogenic bacteria, whereas, a very clean person may have the necessary streptococci under the finger nails to infect several patients.

As a rule, the best of us consider a little washing of the hands all that is necessary, possibly dipping them in a bichloride solution of uncertain strength. But this is not sufficient. The hands should be thoroughly scrubbed, particular attention being given to the finger nails and then, at least soaked in a 1-1000 bichloride solution. Personally I prefer the Permanganate of Potassium method of sterilizing the hands, though it is often very troublesome in ordinary private practice.

The hair upon the patient's vulva should have been cut short, and before an examination is made the vulva, perineum and interior aspects of the thighs, should be washed thoroughly with soap and warm water, and then with a 1-1000 bichloride solution. Of course many patients will object to this course, but we should do what we can and that relieves us of the responsibility.

I do not advocate the vaginal douche before labor. As I said before, the fluid used in douching may dissolve the mucus and set free the bacilli

contained therein, and which if not interfered with would be carried downwards and out of the canal by the downward natural flow and also by the descending head. There is plenty of authority for the statement that the mortality rate has been materially decreased by the abolishment of the so-called prophylactic douche. Nearly all the large maternities in the world have given up its use.

It also washes from the vagina the natural lubricants which are so necessary to assist the easy descent of the child and the dilation of the parts.

Vaginal examinations should be made as seldom as possible. Very frequently one can attend a normal labor, with one examination made when the patient is first seen. After that the progress of the case may be determined by external palpation. It is very difficult to keep oil or vaseline sterile, though it may be kept fairly free from soiling by using the collapsible tubes like those used by artists to hold their paints, or one may use a solution of bichloride gr. 1 to glycerine oz. 4.

For the proper treatment it is important that we should differentiate, if possible, between these two diseases, for the treatment is very different. In septic intoxication the curette is indicated; in septic infection it can seldom do good and may do much harm. When I advocate the curette I mean a thorough using of it, removing all the mucosa. There the disease is situated and it must be entirely removed. To do this requires a sharp curette and an educated hand. The uterus in these cases is flabby, the walls thin, and it is very easy to go through the walls into the abdomen, but with care, and the knowledge of that peculiar grating which we get when the muscular coat is reached, will prevent this.

A douche of sterile water should be used during this curettage, and afterwards until all clots and debris are removed. Personally I then prefer to pack the uterus with sterile gauze, which I remove in from two to five days, in some cases repacking. But a great many prefer frequent douching, never packing, and while in some cases undoubtedly this seems to be the best, still I think that if the curettage has been done thoroughly the packing will give the best results. If not done thoroughly, however, it is best to douche frequently enough to remove those particles of necrotic material which have been left and which gradually slough off. Curetting always brings improvement even though there may be a relapse.

In the infective cases the streptococci have, as a rule, already penetrated the muscular walls and a curetting would only open a little wider the doors of absorption. It is possible that if done while limited to the mucosa it would do good, but we do not usually diagnose the case early enough for that.

In cases of intoxication an uterine douche without the curette will often wash away a great deal of this necrotic tissue, improving the patient wonderfully. Again, possibly two or three douches will be required. But I mean uterine, not vaginal douches, such as I have seen given under the mistaken idea that the fluid would find its way somehow up into the uterus. The temperature, after these douches, sometimes drops two or three degrees, and an apparently very sick woman is within a few hours convalescent; but if after using the douche the patient does not materially improve, I should advise the prompt and thorough use of the curette, remembering that in all these manipulations perfect asepsis must be carried out.

The treatment otherwise is principally symptomatic. The temperature disturbance should be treated with quinia and the salicylates, and hydrotherapy either by sponging, the wet pack, or both, avoiding the petroleum derivatives, which are too depressing. Pain if great should be relieved by opium. Stimulants and nourishing food, by the rectum if necessary, should be pushed. Patients, with either of these diseases, especially true sepsis, stand alcohol very well, and it should be used freely, but not to excess, however. The bowels, skin and kidneys should be kept active by the proper remedies.

Quinine has been supposed to have a specific effect, independent of its action as an antipyretic, because of its claimed limitation upon inflammation by its influence upon leucocytosis, and it does do much good, particularly in true sepsis.

In the cases of infection seen early, coeliotomy is indicated, but the mortality has thus far been distressingly large, about 65 per cent. Early diagnosis and early operation will no doubt lessen this rate.

It is quite probable that the thrombotic cases offer a fair field for operation, as there is in these cases less general disturbance, and the lesions are for a time altogether local. Peritonitis occurs but rarely and for a few days, until pyæmia occurs the patient is in a farily good condition and will very likely react.

Rachitis.*

A Plea for Its Prevention and Early Recognition.

By I. W. Faison, M. D., Charlotte, N. C.

You and I are well aware that I have brought to you to-day a very old disease, but yet an interesting and important one; one that has been recognized and about which much has been written for centuries. Still I fear that it has been too often overlooked till it has made inroads into the frame work of our little patients. It is at the very beginning of this disease that I desire chiefly to call your attention, for after the disease goes on until its regular type is reached, with its boxed head, open fontanelle, pigeon breast, beaded ribs, protruded abdomen, prominent epiphysis at the wrist, curved spine, bow-legs and relaxed muscles and ligaments, it can be readily detected by the most casual observer. What are the causes? These are several, viz.:

Congenital predisposition, when the parents are weakly constituted, either from tuberculosis, syphilis or general debility of the mother during gestation, and these only, so far as they go to reduce the strength and impair the normal function of a perfected organism; bad hygienic surroundings, filth, foul air, want of light and heat, food disorders of any kind, producing long and continued vomiting, diarrhœa, and withholding the proper food. All these may work together to produce Rickets, still it is not necessary that all of these causes be present at one time. for in many cases where, after seeing the parents, you would look for rachitical children, yet do not find them.

*Read before the N. C. Medical Society, May 12th, 1896.

It is true that when the hygienic surroundings are the worst, it does not always abound. In many places, where the hygienic surroundings are all that one could wish for, with strong, healthy and robust parents, you will readily recognize Rickets, for I have seen well marked cases of Rickets, among the most wealthy people, where the children enjoyed everything in the way of good hygiene, and in fact everything except the one important thing, to-wit: the proper quality of food. On one occasion I was called in to see a little girl patient of a wealthy family who had gradually gone down and down with recurrent food disorder. After a careful examination, I made the diagnosis Rickets. When I gave my opinion to the fond mother, the most dejected, care-worn and burdened expression came over her face I ever saw. With disgust in her very look, and in her tone of voice, she said: "Why doctor I did not think that anybody but negroes and poor people ever had Rickets." To hold my position in the family I had to bring to bear all my persuasive powers, but with an assured promise on my part that a rapid and complete cure would soon follow. She trusted and helped me to carry out the treatment in every minutiæ, and very soon the reward came, and the little patient, unless told by her mother, will never know that she had the Rickets. As this fond mother looked at it, so hundreds and thousands of other mothers look at it, and I fear that a good many physicians look at it in the same way to-day.

The food disorders and catarrhal conditions of the alimentary canal, are very important causes, as they tend to induce the disease, and dam the way between the food properly administered and its proper assimilation. The withholding of the proper kind of food is the most important of all causes, for while the other causes, already enumerated, tend to produce such a condition in the system for the speedy induction of Rachitis, still with all these causes sufficiently at hand, with plenty of good food of the proper kind, and in sufficient quantities, we will see the little patient develop. Another important cause is the conception of the mother while nursing, and especially about from the fifth to the seventh month. The milk at once becomes vitiated, digestive disorders set up in the child, and Rickets at once appear.

Symptoms.—As I have already thrown aside the regular type of this disease in this discussion, what symptoms shall we rely upon for the diagnosis in the beginning?

You are well aware that it is a disease belonging mostly to the first two years of life. In fact several well authenticated cases of Rachitis are are on record. I want to say that it is a disease that every child is liable to, and also that it is a preventable disease, therefore it behooves every physician to be on his guard from the first moment a babe is put under his care For an obligation rests upon him that he must recognize and meet, or through gross carelessness or ignorance he sits by and lets the little patient grow unnoticed into the very condition that I am discussing. The first few months, and till past the second year, is a very important period to every child. If you can successfully pilot the babe through this period without falling into the quagmire of Rachitis, then your reward will be a full grown, magnificent specimen of man, or a symmetrical and beautiful woman You need not look for a full group of symptoms in making a diagnosis of even a regular type of Rachitis, for in most cases only a few of these symptoms are present, and in the begin

ning the symptoms are very often overlooked, because not so clearly defined. When you see a little fellow with continued constipation, and he beginning to lose flesh, his muscles get flabby, and especially of the lower extremities, head beaded with perspiration every time he drops off to sleep, crying out, and restless at night, throwing off the cover frequently and with every little cold laryngismus stridulus appearing, now an attack of indigestion, diarrhœa, then an attack of bronchitis, the teeth beginning to appear later than eighth or tenth month, the fontanelle slow in closing, and the veins all over the head distended, with convulsive tendencies, with every little rise in temperature, you may at once suspect Rachitical diabasis. When these symptoms appear, it is the proper opportunity for the proper means to be used for checking its development. If you will bear in mind these symptoms, always be on the alert for them, and recognize their significance, you will be better prepared in all cases to treat them with more decided convictions, because every little case of food disorder, bronchitis, laryngismus stridulus is not best treated when only treated symptomatically.

I will first consider the preventive treatment. Examine well the general condition of the mother. See whether or not her mammary glands bid fair to supply food intended by the Creator. As soon as parturition is over, feed the mother on a full diet of good food, both in quantity and quality. In a few days see if the child shows normal increase. Examine carefully the milk supply. Find out how long and how often the child nurses. Very often the mother will proudly proclaim: "Oh! he gets all he wants; why he nurses all the time." This at once, to an observant physician, tells the tale. This certainly shows that there is not enough in quantity, for no healthy baby, who gets enough food, will remain at the breast more than five to ten minutes.

Prof. Emmet Holt's milk, set for clinical examination of a mother's milk, will aid you in making the test readily and with sufficient accuracy to show you whether the quality is up to the standard. Both quantity and quality must be carefully observed. The best hygienic surroundings, and the full regime of the best and most nutritious food for the mother, will do that which is best to regulate the normal supply of baby food. Some medicines are recommended for this condition, but none have met my expectation. The quality of the milk supply should show at least five per cent. cream. If less than this, between two and three per cent., with all the quantity you could crowd into the little fellow, he would not normally increase. No milk with only two or three per cent. of cream can be improved so that it will be sufficient for a baby to live and develop properly on.

In such a condition you must remember the human milk analysis as laid down in your text books, and at once supply the artificial food, the necessary amount, both in quantity and quality. A great many artificial foods are on the markets for babies. I desire to say but little about them Some times we find our patient where we can use them to great advantage for just a few days. As a food for continuous use, to raise a baby with, I must unqualifiedly condemn them. True it is that you can keep a baby fat on them, and just here I wish to warn you, for under the blubber of such a child, with a keen perception, you can too often recognize Rickets in its insiduous work. Dr. Chaedle records a beautiful case in the prize baby, at a baby show, rolling in fat from this very kind of feeding. So you

can see in this condition, "all that glitters is not gold." Recognize the fact that the baby must have the proper kind of food both in quantity and quality, and supply that demand, and you will not have any Rickets to treat. As soon as recognized the proper food, both in quality and quantity, should be given. The treatment will then consist of foods both in fats, proteids and medicines. If the child is nursing, and the milk is of any service continue it. The fats, viz.: Rich milk, cream and butter, proteids, viz.: Raw beef, soft cooked eggs, or better, the white of an egg well whipped, allowed to settle, the foam skimmed off, and a little sugar and orange juice added to flavor. The juice of one orange should be given every day.

The medical treatment is very limited. For the first four or five days give one half to one third grain doses of Hydrarg Cum. Cretæ, then Cod Liver Oil, if properly assimilated. Still I think this should be considered one of the fat foods. Syr. Lactophosphate Lime, and Phosphorus. This latter drug in its free state has not been very beneficial in my hands. Iron, in the form of a glycerole, as prepared by Wyeth, has proven very beneficial in my cases.

General Care of Infant from Birth to Childhood.*

By H. D. Fuller, M. D., Seymour, Wis.

Infancy is the most important and interesting period of life, because of the great changes, the greatest amount of sickness and deaths. Infancy extends from birth to the age of two and a half years, the completion of first dentition. The organs are delicate; the brain is rapidly developed; animal matter predominates in the bones; the arteries large; the muscles and superficial veins small; the skin delicate with a temperture nearly equal that of the blood; the liver large occupying at birth nearly half of the abdominal cavity, but grows smaller. The kidneys are distinctly lobulated, but gradually change their form, so that, toward the close of infancy they have the form of an adult, but comparatively larger.

After the birth of the infant, the cord should not be tied until the infant has breathed freely for a few times, or until the pulsation of the cord has ceased altogether, if there is nothing in the condition of the mother that requires haste. There is no danger to the infant from a late ligation. The infant only receives into its system the amount requisite to supply the need created by the opening up of the pulmonary circulation, from the excess of blood contained in the fetal portion of the placenta. My reasons are, as soon as resperation takes place the thorax expands and air fills the alveoli of the lungs, and the blood passes from the right side of the heart into the capillaries of the pulmonary organs, and is returned to the left side of the heart arterialized. By the establishment of this circulation the ductus arteriosus contracts, the ovale closes and eccentric hypertrophy takes place in the left ventricle. With the division to the lungs. the pressure in the aorta lessens and the circulation in that portion of the umbilical which lies out of the naval ceases, while the umbilical is emptied by thorac asperation.

Welcher estimated that the quantity of blood of a new-born infant to

*Read before the Wis., Medical Society June 3, 1896.

be equal to $\frac{1}{19}$ of the weight of the body, and to tie a cord immediately after birth would be robbing the child of three ounces of blood which would pass into circulation.

If the child is anæmic, or suffering from syncope, waiting until pulsation in the cord ceases, an invaluable means of restoring equilibrium of circulation is furnished. It is a comman practice, yet not a good one, to tie the cord the moment the infant is born; if we consider that the infant has been kept alive by circulation of the cord, now to change this in an instant to the state whereby life can not be sustained without resperation, is bad practice.

Bathing.—The resisting power of the new-born to cold is feeble, therefore the first bath should be nearly that of the blood. The vernix caseoso should be removed with gentleness, after it has been softened by oil. After the bath the infant should be quickly dried in soft warm cloths, the cord wrapped in absorbent cotton and held upon the left side by a flannel bandage. One fault of many nurses is, just as soon as the infant is given them, they begin the scrubbing process. Many a child, as it were, is washed to death. It is better to wrap the infant in soft warm flannel, after the eyes has been carefully cleansed and left for a time. After the first bath it is inadmissable until the cord is detached. After the cord has separated the wounded surface should be dressed with bismuth or iodoform gauze. From this time until the close of the first year the infant should have a daily bath, but not to exceed three or four minutes and be dried quickly and clothed warm.

No bathing to be allowed immeciately after nursing or when the pores of the skin are perspiring, for with the infant the reaction of the surface is tardy, when chilled with water, therefore there is great danger of catching cold and liable to contract sore throat, bronchitis or intestinal catarrh. After the first year if the child is robust, the bath may be reduced two or three degrees, but it should not be lower than this during infancy.

Nursing.—The infant should not be applied to the breast, until the mother has had a few hours for rest. Although the full amount of milk is not established until the second or third day, yet in many instances a sufficient amount will be obtained to satisfy the infant, for at this early period the infant does not require much. If the milk is delayed for a time and it is advisable to feed the child, a little cow's milk mixed with three times its quantity of warm sweetened water may be given. In regard to the time for nursing, no fixed rule can be given, for the first few days the child seems to be satisfied by nursing from four to six times, after that about ten times a day. After the second month, every two, or two and a half hours should be taught the mother, also that when a child is fretful during the interval, it is not hunger but colic, and it is aggravated by irregular feeding. If the mouth of the infant is washed out after each each nursing with cold water they will avoid having the sprue. During the night the child should not be nursed or fed oftener than every three or four hours. As the child grows older, the stomach becomes capable of taking larger quantities at a time, and the time should be lengthened to four or five hours.

If the infant is well nourished it should not be disturbed unless the sleep is protracted. If the infant is ill-nourished and wakeful during the night, a prolonged sleep might indicate a brain trouble, yet in the majo-

rity of cases they are in need of better nutrition, in such you will find that the food is either deficient in quantity or quality. In regard to the time to allow the child artificial food in connection with the breast not time can be given, while some mothers can satisfy their infants to the age of twelve or even fifteen months, others may begin to feel the drain upon their system after three or four months; some may have abundant of milk yet fail to satisfy and nourish the child, such must have artificial food. It is not the problem of the best and most natural food, mother's milk, for the infant, that is continually coming before us to be solved, but what artificial food will fill the place of human milk. We all understand that in the new born that the digestive glands are very imperfectly developed, and the secretions defective in quantity and quality. That a substitute for mother's milk is liable to irritate, especially in warm weather. No artificially prepared food is a good substitute for human milk, unless it be under the most favorable circumstances. In the country where the air is salubrius, the system invigorated by sunlight, a robust constitution inherited and where fresh cow's milk of the best quality can be obtained. In the city it is far different, and statistics show that artificial food entails the most serious results. Experience teaches us if cow's milk is given pure it produces indigestion, colic, vomiting and perhaps fatal diarrhœa. This is due to the difference of the molecular arrangement of the casein they contain, and that cow's milk is more apt to be acid than alkali.

If we add coagulating acid to cow's milk, about $\frac{4}{5}$ of its albuminoids is rapidly formed into a firm coaglum and is slowly disolved by the gastric juces, while the human milk, only $\frac{1}{4}$ of its albuminoids is slowly formed in a flaky coaglum, easily acted on by the ferments of the stomach. When cow's milk is used for infants, thd selection should be made with reference to the child's individuality, rather than by analysis. Condensed milk is popular, yet it possesses no superiority over pure fresh milk and should not be given for too long a time, on account of the large amount of sugar it contains. Then we have the prepared food, of these Leibigs or Mellin's are the best, they are almost identical the same. If milk that is fresh and from healthy cows, those that are properly fed can be obtained, it is to be preferred to any of the prepared foods. The bottle should be kept scrupously clean and when not in use, to be kept in a bowl of pure cold water, to which a teaspoonful of bicarbonate of sodium has been added. The milk should be tested every day, if it is acid it should be rejected, or made alkaline by the addition of a little lime water, or bicarbonate of sodium. It should be diluted with barley water, unless there is too much peristalsis of alimentary canal, if so I perfer rice. The amount be given depends upon the condition of the child. Some require more than others, but the minimum amount that is necessary for the development of the child is the best. One great danger is over fooding. Milk should always be given at a uniform temperature, and at regular intervals.

Weaning.—This should take place between the age of ten or twelve months and be effected gradually, that the digestive organs may become accustomed to some suitable artificial food, an abrupt change is apt to derange the digestive organs.

It is best to commence by feeding oftner during the day and nursing at night, after a time it should be taken entirely from the breast. It should not be during the hot months, or the month immediately pre-

ceeding them, not during the eruption of its teeth, while sick or during convalescing from sickness.

Sleep.—The new-born requires about ¾ of its time for sleep. As it grows older it requires less, yet an infant should have a proper amount of sleep. If the child is wakeful and fretful the cause should be found out and remedied. The room should be large, well ventilated, yet free from draughts, for a sudden change of temperture is fraught with much danger to an infant. Again all clothing that is worn during the day should be changed for night clothing, and those should be of proper warmth to protect the child from change of temperature. An infant should not be held or carried upright until it can hold up its head and rotate it easily from side to side, nor should it be encouraged to walk until it is nearly a year old.

Clothing.—For the new-born use great care that there is no dragging on the navel, and the band must not be tight enough to interfere with the resperation, and the extremities should be kept warm. The covering for the feet should be soft and loose about the toes to allow freedom and growth. The long clothing should not be changed for short ones, before the infant is three and a half months, if in winter four and a half, better five months, and then the greatest liberty given to arms and legs. The clothing during infancy should hang loosely from the shoulders, and not press unduly on chest or abdomen. Regular during the suitable portion of the day should the child be taken out in the fresh air, unless the weather is stormy.

Vivisection.

The following resolutions, presented by Dr. Gould, and recommended by the Council, were discussed and adopted unanimously by the American Academy of Medicine, May 4, 1896:

Resolved, That the American Academy of Medicine desire to express its opinion that no legislation is required or desirable in the United States in regard to the so-called practice or subject of "Vivisection," and for the following reasons:

1. Because only by careful discrimination and collection of facts can public and legislative opinion be truthfully formed. To illustrate but a single of many popular errors upon this subject: the dissection or use of dead animals by scientific men is termed "vivisection," when the same proceeding carried out by the butcher, the hunter, the restaurant keeper, cooks, etc., does not enter into the consideration, neither do the cruelties in the use and keeping of domestic animals, nor those in the deaths of animals for other purposes than those of experimental medicine.

2. While admitting and deploring the facts of abuses in the past and in some European countries,—to a very limited extent also in America—it is the conscientious belief of the members of the Academy that at present with us such abuses do not exist, nor are they in danger of occurring, to a degree justifying or calling for legislation, as, under the circumstances, the evils that would inevitably result from such legislation would greatly exceed the benefits to be obtained by it. The charge implied or openly made that physicians, either in theory or in practice, are more cruel than other classes of the community, is a fancy or prejudice of ignorance which cannot be proved, and which we strenuously deny.

3. Legislation upon the subject of cruelty to animals should be so framed as to include consideration of cruelties infinitely greater and more extensive in many other fields of human activity at present not actively objected to by those who urge legislation as regards experimental medicine. Not only this, but legislation concerning these matters should be broadened out in order to prevent the destruction of species of birds and other animals by the votaries of fashion, by the hunters, etc., to prevent derangement of the delicate balance of animal and vegetable life upon which civilization ultimately and largely rests, to prevent deforestation of the head-waters of our streams, to establish Sanctuaries or Resorts for animals, and many such biologic requisites,—as also to establish such arrangements with other nations as will ensure their permanent and extensive effectualization.

4. Legislation upon a subject of vital importance to a peculiarly technical branch of science should be framed under the guidance and by the aid of those who by education and experience are alone fitted and capable of forming and expressing sound judgment upon it, *i. e.*, the experts in the special subject. It would be as absurd to have legislation as to vaccination, inspired and shaped by laymen who were anti-vaccinationists, without weighing the opinion of the medical profession, as to allow legislation upon the question of vivisection by laymen who are anti-vivisectionists, and even inexpert in any branch of inductive science.

5. The American Academy of Medicine therefore urges its members and physicians generally to write to their representatives in Congress, (or wherever legislation of the kind in question is proposed), and otherwise seek to influence public and official opinion against the passage of a particularly ill-advised bill before Congress, to wit, Senate Bill No. 1552, introduced by Mr. McMillan, entitled *A Bill for the Further Prevention of Cruelty to Animals in the District of Columbia.* In the opinion of the Academy the passage of this bill would be harmful to the true interests of medical and social science and to the public health.

The Danger of Operative Treatment of Enlarged Prostate.

Dumstrey records a case of enlarged postate treated by ligature and resection of the vas deferens, which shows that this operation cannot be regarded as a simple one and free from risk. A man, aged 65, in all other respects strong and healthy, came under the author's case with complete urinary retention and severe cystitis due to considerable prostatic enlargement. Partial resection of the vas deferens on both sides was followed in the course of a few days by decided relief of the local symptoms, the man being able to pass urine spontaneously and the urine becoming much less turbid and containing day by day less pus and blood. The prostate, which just before the operation had been as large as a fist, was reduced in size by about one-half. These good results, however, were associated with serious impairment of both the physical strength and the mental condition of the patient. He speedily presented the appearance of a very old and feeble person. His movements became slow and clumsy, and he was unable to comprehend what was said to him and also to express his own thoughts. After an interval of about a fortnight his condition commenced to improve, but the change for the better was slow and gradual.

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Medical Letters may be addressed to

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THE TREATMENT OF DIARRHŒA,

At the present time, as we are in the midst of the heated season, with lobsters and green apples on the one hand, and clams and cucumbers on the other, it may be of interest to discuss such a familiar subject as the treatment of diarrhœa. All recognize that a diarrhœa is simply an expression of a certain derangement of the gastro-intestinal tract and to interpret and remove the cause should be the first rational effort of treatment. In the majority of cases diarrhœa is produced by indigestible food; in the beginning it is a conservative process induced by nature to get rid of such an offending mass. Ice water at meal time often plays an important part in the cause of diarrhœa.

Just as the unfortunate stomach is trying to get warmed up to its difficult task, its temperature is suddenly and greatly lowered by a deluge of ice-water. This is repeated so frequently that finally the injured viscus gives up in despair and passes the unchanged material along to the intestine to get rid of it as best it may. It is fortunate for the patient if the doctor, in his zeal to check the naturally-induced purging, does not suddenly lock up the bowel, and in it the offending matter that is causing all the trouble. There is a popular idea that a diarrhœa should not be stopped too suddenly. As there is nearly always a grain of truth somewhere to be found underlying a popular delusion, so this idea doubtless rests upon the fact that an intestinal discharge due to irritating masses of food, suddenly checked by a heroic dose of opium, may be followed by inflammation of the bowels and peritonitis. When such a source of irritation has been removed, a diarrhœa cannot be checked too quickly. Indeed, further treatment is frequently unnecessary. The elimination of indigestible substances can be accomplished by various agents. All irritating laxatives must be avoided. A few grains of calomel finely triturated with a little bicarbonate of soda and sugar of milk often does very well. A small dose of calomel if triturated finely enough, will answer all the purposes of a large amount. Many physicians prefer castor-oil or some of the preparations of rhubarb for cleaning out the bowel. The secondary astringent effects of these drugs are beneficial. It is well to combine with them a small quantity of one of the preparations of opium. After the irritating cause of a diarrhœa has been removed, the different astringents

can be used, according to the preference of the practitioner. Out of a very large number from which to choose, the sub-nitrate of bismuth in large doses is probably the least harmful and most effectual. It checks any acid fermentation, and soothes and constringes the mucous membrane.

While improper food is a preponderating element in the diarrhœa of summer, impure water and foul air introduced into the system noxious ingredients that are frequently irritating to the bowel. It is a common experience of medical students to contract a diarrhœa from staying in the dissecting room, which ceases when they stop working upon the cadaver. A conservative process of elimination is here instituted that probably saves them a fever. Animal and vegetable refuse matter in the streets, wakened into active fermentation by the hot sun of summer, may act the same upon the layman as the dissection-room does upon the students, Some persons seem to be peculiarly susceptible to this form of poison, and correspondingly quick to throw it off by a diarrhœa. The treatment of this form of intestinal derangement is obviously to remove the patient from exposure to the foul air, when recovery will readily take place. Mild astringents may be needed to hasten this result. Occasionally persons in debilitated condition, in consequence of the heat and impurity of air so frequently found in the city in summer, seek to relieve a continual irritation of the bowels by a change to the purer air of the country. But if the air is purer, unfortunately often as much cannot be said of country water. In fact, many people leaving town in a sound condition fall victims to diarrhœa before many days' sojourn in the country. The uncomfortable proximity of the cess-pool to the well, and the defective means of ridding the premises of sewage, destroy the good effects of many a rural visit. The sanitary condition of numbers of farm-houses and country hotels is far from what it should be. If the visitor does no more than contract a diarrhœa in many of these places he will be fortunate. Of course a simple change in the character of drinking water often produces a slight diarrhœa, aside from any animal or excess of vegetable matter it may contain. If a looseness of the bowels persists, however, after treatment by ordinary astringents, the patient had better quickly change his place of summer recreation.

THE ROLE OF ALCOHOL.

There can be no doubt that the role of alcohol as a drug has of late years been greatly restricted. Whatever causes may have been at work, it is a well-known fact that very much less alcohol is used in our hospitals than was the case only a few years ago. By many physicians alcohol is not so given as a matter of routine, at least in hospital practice, as it used to be. . The present treatment of typhoid fever is an indication of this. While advocating alcohol in the treatment of certain cases of that disease, a celebrated writer says: "The bulk of our patients neither need nor get it." Not so very long ago all would have had it as a matter of course. The same position has been taken up by others with regard to pneumonia. But many have said, and no doubt there are many who say still, that these diseases cannot be treated properly without alcohol. We shall not here discuss the necessity or value of alcohol in the small remnant of these cases. So long as it is given in pure form as alcohol, and for a limited

time and specific purpose, it could not seriously affect the great temperance movement. But medical men who prescribe it as a valuable food, and who order it when they know it is not needed in order to please their patients or to pander to their prejudices, are responsible for a very great deal, and are a terrible hindrance to the general abandonment of the common habit of taking intoxicating liquors and its inevitable result—more or less intoxication. Even if it were true that alcohol would not do all that brandy, wine, and beer will accomplish, it is certainly possible to add such drugs as will prevent their being taken after the object has been obtained. There can be no question that multitudes have been led to take these drinks through having begun them in illness, and therefore the danger ought to be recognised, and either this or some other means should be taken to obviate the danger. The medical profession must realize their responsibility more fully, and make a clearer distinction between alcohol as a drug and alcoholic beverages.

THE FUTURE OF VACCINATION.

The future of this method of prophylaxis is very interestingly discussed by the Editor of "The Hospital."

It is one of the most striking proofs of Jenner's genius that his great invention was born before due time, and was so far out of touch with the knowledge of the period in which he lived that for nearly a hundred years it remained an isolated fact, unexplained by, if not totally at variance with, all that was known of the pathology of disease. It has only been within the last few years that the protective power of vaccination has been explained, and has been shown to be analogous with other facts in path ology.

Strongly as it has been asserted that vaccinia is a specific disease of the cow, modern investigations have shown not only that Jenner's original idea that it was small-pox modified by passing through the cow was correct, but that the protection obtained by such a modified virus is in full accord with that obtained in regard to other diseases by inoculation with their attenuated virus; so analogous, in fact, that these attenuations have come to be spoken of an vaccines.

It is not, then, altogether unnatural that people who are quite willing to submit to vaccination as a protection against such a loathsome disease as small-pox should be somewhat disturbed in mind at seeing how far the principle on which it is founded is capable of extension; for they ask themselves, whither does this tend, what is to be the end of it, and if we admit compulsory vaccination against small-pox, how can we prevent the enforcement of compulsory vaccination against all sorts of other diseases?

The answer to this question is simply this, that small-pox stands on a completely different platform from all other diseases. There is no other disease which is at the same time so infectious, so fatal, and so crippling as small-pox.

Although some process analagous to vaccination may be found useful as a protection against cholera, yellow fever, and malignant malaria in tropical areas, the question of protective vaccination does not arise in regard to any disease except small-pox in temperate climes.

Some people profess to believe that with the advancement of sanitation zymotic diseases will become things of the past. We wish that we

could agree with such hopeful prognostications. The fact is, man and his diseases have grown up together, and every fact in natural history points to the probability that disease germs will accommodate themselves to any change in man much more readily than man will fit himself to new surroundings; and that, as regards small-pox, which affects the natural savage just as severely as the most civilised man, no conceivable improvement in physical condition will give man immunity.

To vaccination, then, we must have recourse, but not necessarily to the vaccination of to-day. So long as people choose to look on vaccination as a mere process which experience has taught to be prophylactic against small pox, of course they must follow the receipts given them, and just as a cook puts certain ingredients into a pudding without knowing why, so they must go through the exact formula which Jenner found to be efficacious. Most unfortunately, the administration of the public vaccination of the people was years ago handed over to the Poor Law authorities and was fossilised under the dead hand of officialism which devoted itself to the enforcement of a certain historic form of pock. We still maintain the old creed that vaccination from arm to arm is the true way to safety, while other nations by animal vaccination practically disarm objections to the operation. The first step then in the future of vaccination must be the universal substitution of animal for arm to arm vaccination; the next the securing of aseptic vaccination. for there is but little doubt that as vaccination is too often done at present it is an inoculation with a very mixed infection. But we are far from saying that these steps should be the last. Everything points to the possibility of our being able before long to obtain pure cultures of the germs of small-pox as of other diseases entirely independent of any living media, and it is not unreasonable to believe that when that result shall be obtained vaccination will be a much less serious business than it is at present. Perhaps it is permissible to look ahead still further, and anticipate the time when even the inoculation of living germs, attenuated though they be. may be found to be unnecessary, and when vaccination, instead of being the production of a disease, will consist essentially in the administration of a chemical substance produced by cultivation of the germ, a drug in fact, which shall give immunity. This would, indeed, be a thing worth having. We now celebrate the cetenary of a discovery which, while full of practical usefulness, has been of wondrously slow fruition in regard to science. Let us hope that in the century now opening progress may be of quicker growth.

A HUNDRED YEARS OF VACCINATION.

A hundred years have passed away since Jenner's first successful vaccination. Jenner's brilliant idea, pondered over for more than twenty-five years, was that small-pox might be abolished by the universal adoption of vaccination. Others had vaccinated before Jenner, but he was the first to rouse the civilized world to take an active interest in the subject; and we must not forget that vaccination was not the outcome of laboratory experiments, but a practice resting upon a common experience in many countries of Europe, not to mention Mexico and Persia; that dairy-maids and others who had "sore hands" from milking cows affected with cow-pox were afterwards found to be protected against small-pox.

THE VALUE OF EXPERIENCE IN THE USE OF DRUGS.

Therapeutics is a branch of medicine which can be only learned by actual experience. I care not how thoroughly a young man may be educated, and to a physician nothing is more valuable than a thorough medical education. It gives him the foundation, the rock bottom upon which to build, but he can not become a skilled therapeutist without actual experience with drugs.

The Professor, Teacher, or Author, may tell him that iron is the sheet anchor in diphtheria, but he must know from experience how much to give, and how often, and how to graduate the dose to the individual. If he does not he will not be successful.

Many years since a man came to me suffering with severe headache, which was *always worse at night*, and nothing gave him relief but morphine, and he was taking from one-half to a grain at night at the time. The history did not point to syphilis, but he had a bony growth on one side of the head, which was very tender to pressure. He told me he positively would not take any Iodide of Potassium. My diagnosis was that it was a syphilitic trouble, and I gave him Iod. Pot. in increasing doses daily. Two hundred and fifty grains daily relieved all pain and made him sleep like he had taken an opiate. In two months the bony tumor had entirely disappeared. The man told me he had taken a bushel of Iodide Potassium without any benefit. Those who had given it to him, did not know how to use the drug.

One object in administering any drug is to cure, palliate, or in some way modify the disease. We must first know what the disease is, and what the pathological condition of the organ is and then we know *what we want to do.* Then select the remedy, and then push it until the disease is giving away under its administration, or until you have its physiological action. If you get its physiological action without benefit, it is doing no good and should be stopped.

Over and over again we have heard men say that such a remedy was no good in a certain disease, and at the same time we know positively that he did not know how to use the remedy, because we rarely failed to accomplish with it what we undertook.

He had either discontinued the drug at night, or had lengthened the intervals between the doses, or had diminished the dose. The drug must be administered so as to produce an effect if it is the right drug in the case. We learn the proper use of drugs by experience, and in no other way.

When we go, or are called to see a patient, where we have been preceded by some other physician, and see the mantel piece filled with bottles or boxes of different medicines, we know at once that he either did not know what was the matter, or did not know how to use the medicines.

INTRODUCTION OF VACCINATION IN THE UNITED STATES.

Dr. Benjamin Waterhouse, Professor to the Theory and Practice of Physic in the University of Cambridge, Massachusetts, published a short account of cow-pox in the Columbian Sentinel, March 12th, 1799, under the heading "Something Curious in the Medical Line." Not long afterwards he brought the subject before the American Academy of Arts and

Sciences. John Adams, President of the United States, who was also President of the Academy, was at the meeting, and received the communication in a manner worthy of his exalted position. After several unsuccessful attempts to obtain cow-pox matter from England, Dr. Waterhouse at length succeeded in getting some from Dr. Haygarth, of Bath, who forwarded it from Bristol after procuring it through Mr. Creaser from Jenner's stock. Dr. Waterhouse inoculated, on July 8th, 1800, seven of his children with this supply, and six of the vacinations were successful. In order to confirm the prophylactic value of the method three of the children were sent to the small-pox hospital, where one of them, Daniel, aged 12, was inoculated with small-pox. There were some slight appearances of infection on the fourth day, but they soon died away and left no traces of their action. A fresh supply of lymph from Jenner arrived in Boston early in the spring of 1801, and with this President Thomas Jeafferson and his son-in-law vaccinated nearly 200 persons in the course of the following July and August.

Vaccination was introduced into the Southern States by the personal interest of the same President, Thomas Jeafferson, who, being himself from Virginia, was well able to understand the ravages of small-pox among the large black population. The first and second supplies of lymph sent to Dr. Gantt failed, but the third supply proved effectual, and vaccination was soon established successfully in Richmond, and other parts of Virginia.

Dr. John Redman Coxe made most laudable efforts to introduce the inoculation of the cow-pox into Philadelphia, Penn., and in 1802 he published his Practical Observations on Vaccination or Inoculation of the Cow-pock, and Philadelphia has long been distinguished by the efficient manner in which the practice of vaccination has been carried out.

WHY DOES THE OFFICE PATIENT RECEIVE LESS ATTENTION AT THE HANDS OF THE GENERAL PRACTITIONER THAN DOES THE ONE TREATED AT HOME?

The time has long since arrived when the public expects to get value received for every dollar expended. Be this in purchasing the necessaries of life, luxuries, or in the securing of legal or medical advice.

The question above has often occurred to me, after visiting with some of my brother practitioners during their office hours. I have seen an office holding ten patients twice filled and emptied during a single office hour.

In the first place, why this crowd? In most instances this is accounted for in two ways. First, a cheap fee, and secondly, by the dispensing of a few tablets or pills. The first, "Fee," we will have something to say about in another place. A few tablets given a patient requires his calling in a few days to have the same renewed. If the dispenser has neglected to note just what was given, the box is filled with some other tablets. If this method is used for the purpose of pecuniary gain, it is, and certainly must prove, disastrous sooner or later.

In seeing so many patients, in so short a time, no single case receives the just and honest consideration due it. As for the result: Patients constantly meeting the same faces in their physicians' offices, begin to suspect the "merchant," for that is really the occupation of such a man. A

thorough physical examination is never made, unless the patient is losing confidence, or is himself cognizant of a standstill in his case.

The tablet triturate is so handy the boxes is easily filled, and consequently the time for writing a prescription saved. When out of just what he wishes to prescribe, the physician only too often gives the next best thing.

On the other hand, at the patient's home, the physician is face to face with one case, or possibly a few members of one household. He examines his case and usually finds that he must prescribe and not dispense. He is not as hurried as when seeing ten patients anxiously and restlessly trying to make themselves comfortable in his reception room. Let those who do business in this way take heed and mend their ways.

SOME NOTES ON THE TREATMENT OF PUERPERAL MASTITIS.

Prophylactic measures should be begun early, at least two months before the termination of pregnancy. The first thing to be done is to prepare the nipples by softening them so that cracking may be avoided. Formerly it was the custom to harden the nipples with alcohol, but this agent was found to produce a brittle cuticle instead of a tough, elastic one, which is to be desired. An ointment of cocoa butter to which a little boracic acid is added, is useful for this purpose. After nursing begins, cleanliness is of the greatest importance. For this I find of great value a borax wash (1 drachm in 10 oz. of water), or a lotion of creoline (10 m. to 10 oz. of water). Either of these lotions may be used to wash the nipples after nursing. If the nipples should become excoriated, or fissured, an ointment consisting of 1 drachm of Balsam Peru to 1 drachm of Unguentum Bismuth Oleate should be used.

R

Bismuthi Oxidi	℥i
Acid Oleic (pure)	℥viii
Ceræ Albæ	℥iii
Vaseline	℥ix

In the event of the breasts themselves becoming over-distended with milk, half ounce doses of magnesium sulphate, dissolved in a small quantity of water, every hour until bowels move, will generally give prompt relief.

Sometimes the breast pump is required, and if so, care must be exercised in its employment, so as not to produce inflammation. When the breasts become lumpy, gentle massage is useful. The nurse's hands should be well oiled and the stroking done in the direction of the lactiferous ducts. Massage is counter-indicated if inflammation is present. If the breasts should become inflamed, rest and elevation of the parts by means of a suitable bandage is of prime importance. Gently rubbing the breasts with a liniment composed of equal parts of fluid extract of belladonna and glycerine applied warm will help in relieving the pain and engorgement.

When suppuration takes place the only thing to do to save great destruction of breast tissue, is to open freely, care being taken that the incision is made in the direction of and not across the milk ducts. The abscess cavity should be thoroughly cleansed with a solution of 1 in 2000 bichloride of mercury, or equal parts of peroxide of hydrogen and water.

If these fluids are injected with some pressure, they will penetrate more deeply, and so prevent further spread of disease. After the cavity is thoroughly cleansed it should be packed loosely with iodoform gauze, or a drainage tube introduced and dressed with aseptic gauze pads, over which a pad of absorbent cotton is placed so as to obtain firm pressure when the bandage is applied.

It is rare for both breasts to become diseased at the same time, but if this should happen, nursing would have to be abandoned.

NORWOOD'S TINCT. VERATRUM VIRIDE IN THE TREATMENT OF PUERPERAL CONVULSIONS.

There is no disease which strikes such terror to the obstetrician, and the laity, as Puerperal Convulsions, and in looking over the literature on its treatment, it is amazing how few authors recommend veratrum in its treatment, and they do it, as a rule, in a way which carries no conviction of its great value.

If we had all the remedies of the U. S. Dispensatory, and had to take only one to treat this disease, we would unhesitatingly select veratrum, and feel assured that if anything would arrest the disease we had it. We mean what we say, without it we would feel we were treading very dangerous ground, and with it we feel we have at any rate the *sheet anchor* for its control. We regret that we cannot now recall the number of cases we have treated successfully by the hypodermic use of veratrum. We cannot now call to mind but one case that died after its use, and this patient had been having one convulsion after another for twenty-four hours when we saw her. After its administration hypodermically, she had only one other convulsion. Her condition was as bad as it could be at the time, pulse 150 and very weak. She lived about twelve hours.

The majority of the medical profession seem to be afraid to use it. There is no remedy, powerful for good, that may not do harm if it is not used properly. With our experience we have absolutely no fear of doing harm.

The different theories as to the cause of the disease, we do not propose to discuss. The treatment alone is our object at present. We all know that statistics prove that it occurs more frequently in primiparæ. It is also more apt to occur in cases of twins. This would lead us to conclude that pressure on the kidneys has something to do with the causation of the disease.

There are two classes of cases in which it occurs. The sthenic and asthenic. In the sthenic form, where the pulse is full and bounding, the face congested, the muscles contracting with great power, the pulse ranging from 125 to 140, we have no hesitation in giving fifteen minims of the tinct. veratrum hypodermically, and in thirty-five minutes, if no impression has been made on the pulse, we give ten minims more. If the pulse falls to 100 or 90 after the first injection, we rarely have to repeat, because it will go lower in an hour's time, and only in case of another convulsion would we repeat and in a less dose. Whenever, after the first injection, the patient begins to heave, showing signs of nausea, we know we have the disease under nontrol and can safely predict that no other convulsion will follow. In the asthenic form from five to ten minims is sufficient to give at the first dose.

The very first evidence or sign of nausea is a sure indication that the remedy has been given in sufficient quantity, and the chances are 1000 to one, that no more will be needed.

The veratrum *will control* the convulsions; then empty the uterus and eliminate the poison causing the trouble. If the veratrum causes much nausea, that can be controlled by a hypodermic of morphine and atropia.

What so overwhelms any community as to have a lovely beautiful woman, the picture of health, which is not infrequently the case, not a year married and anticipating a babe to cement still stronger the tie between husband and wife, to be suddenly struck like a cyclone and to have death to bring desolation to that house?

We should welcome with outstretched arms any means that will prevent any such a catastrophe.

Don't read this and say "it is not so," "I don't believe it," "why has not this been found out before."

We feel as certain, as we could of anything, that had we known of this remedy in our early days of practice, we would have one or two now added to our line of lives saved that went across the border.

"Prove all things, hold fast to that which is good."

LIQUOR ARSENICALIS.

The history of arsenic in therapeutics is interesting from our present point of view. It was known to the ancients in the form of orpiment and sandarach or realgar. Dioscorides gives the following description of the drug: "Orpiment, auri-pigmentum—i. e., the yellow sulphide—is astringent and corrosive, burning the skin with severe pain with the production of an eschar. It removes fungous flesh and is a depilatory." He then describes sandarach or realgar—the red sulphide—in the same terms, stating that, "mixed with resin it causes hair to grow when destroyed by pellagra, and that with pitch it removes rough and deformed nails. With oil it is used to destroy lice, to dissolve abscesses, to heal ulcers of the nose (probably lupus), of the mouth, and fundament (probably epithelioma); With wine it is given for fetid expectoration, and its vapours, with those of resin, are inhaled in chronic cough. With honey it clears the voice and with resin is very excellent for shortness of breath." In China it was used from very early times as an application to venomous wounds, also as a remedy for ague and as a tonic in several diseases. For skin diseases it has been employed by the Hindoos for centuries, though its use was not introduced for this purpose into this country until the end of last and the beginning of this century. It was introduced into Europe about the beginning of the seventeenth century, and was then used as a remedy for pulmonary affections associated with dyspnœa, probably asthma and chronic bronchitis, as well as for different forms of ague. The analysis of a patent ague medicine by Fowler, and the discovery in it of arsenic, led to its extensive use for intermittent fever in this country; and at the end of last century it was a common remedy also for various scaly skin eruptions and for neuralgia.

The British Medical Association will hold its sixty-fourth annual meeting at Carlisle the latter part of July.

BOOK REVIEWS.

THE STOMACH: ITS DISORDERS AND HOW TO CURE THEM. By J. H KELLOGG, M.D. Illustrated. Modern Medicine Publishing Co., Battle Creek, Mich. 1896.

It may truly be said that disorders of digestion are the most prevalent of all human ills, and investigators within the last twenty years have been making more and more clear the fact that the great majority of diseases are primarily due to derangement of the digestive processes. Notwithstanding the great prevalence of stomach disorders, and the large amount of knowledge and experience which have been accumulated by the profession in regard to them within the last few years, it is nevertheless true that no other class of curable disorders has more frequently baffled the best directed efforts of medical practitioners. This is doubtless owing to the imperfect knowledge of the processes of digestion and of the nature of the disorders to which the digestive organs are subject, which has prevailed from the earliest times to within a comparatively brief period. As will be seen by reference to the table of contents, the work embodies: First, a brief sketch of the processes of digestion; then a consideration of the causes of indigestion, and their bearing upon dietetic and other habits, to which is added a description of the various symptoms present in functional diseases of the stomach, together with the means by which they may be relieved, followed by a consideration of each of the several classes of digestive disorders, and the proper dietetic and other measures necessary for their cure. In the study of the practical part of the work, it will be noticed that the measures of treatment recommended are of a remarkably simple character.

The description of the newer methods of investigating disorders of the stomach, whereby it is now possible to apply to their study the exact methods of chemistry and bacteriology, will be of special interest to the reader.

The work contains a number of cuts, many of which are original, and several plates, which will aid in giving the reader a clear idea of the subject presented. The book contains 368 pages.

CLINICAL LECTURES ON ABDOMINAL SURGERY AND OTHER SUBJECTS. By CHARLES T. PARKES, A. M, M. D. Edited by DR. A. J. OCHSNER. Chicago: The W. T. Keener Company. 1896.

The four leading chapters of this work are Abdominal Tumors; Gunshot wounds of the Stomach, and under this section is also considered Gun-shot wounds of the Intestines and of the Abdomen; Renal Calculus and Surgical Operations upon the Kidney. The subject of Nephrectomy is discussed under this section, and the operation fully described, also the subjects of Hydronepurosis and Nephritic Abscess. The fourth most important subject considered, and one in which much has been recently accomplished, is that of Tuberculosis from a surgical standpoint.

Under the section on Abdominal Tumors Porro's operation and that of Super-pubic Cystotomy are clearly and fully described.

The chapter on Gun-shot Wounds of the Stomach is very fine. The illustrations are good—that of Gun-shot Wounds of the Intestines is no less interesting and instructive.

This work contains short clinical lectures upon almost every subject in Surgery, from the treatment of a sprained ankle to amputation of a

hip-joint. Every subject is dealt with in a most practical and easily understood manner. The book contains nearly 500 pages, and is a neat and valuable work.

A Manual of Anatomy. By Irving S. Haynes, Ph.B., M. D. Philadelphia: W. B. Saunders, 925 Walnut St. 1896.

This Manual of Anatomy contains about 700 pages, with a good index at the close. One particularly noticeable feature of the work is the handsome manner in which the viscera and their relation to the surface of the body has been illustrated and described. A brief history of the development of the most important organs are given.

The descriptions are given in the natural order—that is, the order in which the structures are discovered in dissection. The author has had great experience as a teacher in anatomy, and in this work he only states "facts of anatomy" which he has gathered from the standard text books and the allied subjects. Questions of theory have been stated in conformity with the latest published opinions of recognized authorities. This book contains a great deal of matter in a condensed form, which makes it very useful to any one wishing to pursue the study of anatomy. It has a fine index, which has been written up from the beginning of the proof reading.

Every reference has been verified from the completed book, and no pains have been spared to make this essential feature of the volume complete, comprehensive and accurate. The publisher is to be congratulated for the care and neatness displayed in the preparation of the text.

Electricity in Electro-Therapeutics. By Edwin J. Houston, Ph.D., and A. E. Kennedy, Sc.D. New York: The W. J. Johnston Company, 253 Broadway. 1896.

Electricity has recently made such rapid strides in application to both surgical and medical practice, that recent information concerning electrical developments in apparatus and in theory, is much in request by those interested in the healing art. Consequently this little book meets a growing demand, which exists not only on the part of general medical practitioners, but also on that of the general public, for reliable information respecting such matters in the physics of electricity applied to Electro-Therapeutics as can be readily understood by those not specially trained in Electro-technics. The method of treatment adopted throughout the book in the description of electro-technics has been the circuital method; that is to say, all the phenomena of electricity and magnetism have been considered as pertaining either to the electro-static, the electric, or the magnetic circuit, and the laws of these three circuits have been developed upon analogous lines. The book is well illustrated.

Transactions of the Royal Academy of Medicine in Ireland. Vol. XIII. Edited by William Thomson, M. A., F. R. C. S., General Secretary. Dublin: Fannin & Co., Ltd.

These transactions are gotten out in such excellent style, and contain so much valuable reading matter, that he who possesses them may highly value them. It is a nice volume for any library. It comprises over 450 pages, well bound. The many temperature charts and well drawn illustrations show great care in their preparation.

How to Feed Children. A Manual for Mothers, Nurses and Physicians. By Louise E. Hogan. Philadelphia: J. P. Lippincott Company. 189 .

The study of dietetics, as applied to the nursery and the period of childhood, is constantly brought to the notice of mothers. A practical application of theory to individual needs is of great importance, whatever system of feeding is decided upon. The usual hap-hazard method is founded on ignorance. Some knowledge of the physiology of digestion is necessary to select the foods that are suitable for the requirements of infants and growing children. All parents should understand that the rearing of a child is fraught with great responsibility, which it is criminal to avoid. It is too frequently the custom among adults to think that what is provided for themselves in the way of food may be given with impunity to children. They forget that the food an adult can receive and assimilate does harm to the tender organs of a child, organs that depend very largely for their development upon a proper selection and administration of assimilable foods.

The chapter on Infant Feeding is very fine, and should be read by all physicians. The mechanical part in the sterilization of milk is excellent, well illustrated, &c. Every thing pertaining to infant feeding is clearly given in this work. It is a good work, and admirably fulfills the purpose for which it was written.

The Non-Heredity of Inebriety, By Leslie E. Keeley, M. D., LL. D. S. C. Griggs & Co., Publishers, Chicago. 12mo, Cloth. Price, $1.50.

This work sets forth in detail Dr. Keeley's theory that inebriety is a disease and that it is not hereditary. The biological doctrines of the variation of species and natural selection are employed in an explanation of the adjustment of one's body to poison, and in a consideration of the causes, symptoms, and scientific treatment of diseases in general and inebriety in particular. Instead of inebriety being hereditary it is contended that the reverse is true—that inebriates transmit a measure of immunity to the action of alcohol, the logical consequence of which is that the children of drunkards are less likely to become inebriates than are the offsprings of entire abstainers from intoxicating drinks.

The volume sparkles with new ideas, presented with earnestness and sincerity, and with a cogency that results in conviction—all in language within the comprehension of the general reader. The international reputation of the author as an original investigator in matters pertaining to inebriety makes this work of more than ordinary value to scientists, the medical profession, and to all who are, by legislation or otherwise, endeavoring to correct the evils of intemperance.

Quiz Compends, No. 7, No. 14. Compend of Gynecology by William H. Wells, M. D., with 150 Illustrations. A Compend of Diseases of Children by Marcus P. Hatfield, A. M., M. D. Second edition, thoroughly revised, with a Colored Plate. Philadelphia: P. Blakiston, Son & Co., 1012 Walnut St. 1895.

These compends have made for themselves a very good reputation. The two before us maintain that reputation. They contain about 250 pages. They contain a contain a condensation of the best teachings of the present day, and just what the medical student wants and must have in time of need. There will be found in these Compends a larger number of illustrations than are found in other Compends, which adds much clearness to the teaching of the works.

Literary Notes.

Appletons' Popular Science Monthly for June, 1896.—In the June Pupular Science Monthly David A. Wells describes taxation in Egypt both before and after the reforms introduced by England. The Metric System is discussed in a series of letters by Herbert Spencer, and a great many facts to its disadvantage are shown. There is a second article on The Monetary Prob'em, by Logan G. McPherson, showing how the experience of other countries might be availed of by the United States. The article on the woman question published last month is replied to by Alice B. Tweedy under the title Woman and the Ballot. Dr. J. W. Spencer follows his history of Niagara with an illustrated account of How the Great Lakes were Built. Dr. Edward H. Margill presents suggestions on Co-ordination of our Educational Institutions; R. W. Shufeldt, M. D., writing on Frogs and their Uses, represents the solemn batrachian as a valuable neighbor to man. An accurate picture of the common bullfrog, half life-size, is given. Under the title Why Progress is by Leaps the effects of each discovery or invention in making the next more fruitful is pointed out by George Iles. Prof. William R. Newbold discusses Posthypnotic and Criminal Suggestion, and concludes that hypnotic subjects could not easily be made to commit crime. The Subterranean River Midroi is discribed by Dr. Paul Raymond, with views. Some life habits of the mocking birk in freedom are given by I. W. Blake. There is a Sketch with Portrait of James Blythe Rogers, the eldest of four brothers who were prominent in American science. Civil-service reform, materialism, and a far-fetched inference from Rontgen's discovery are subjects of editorial comment.

New York: D. Appleton & Company. Fifty cents a number, $5 a year.

Senator John H. Mitchell, of Oregon, will contribute to the June number of The Forum a powerful and convincing article advocating the "Election of Senators by Popular Vote." He thinks that the political and moral supremacy of the people can be rightfully expressed and maintained only when they exercise this right *directly* and not *vicariously*. He believes that the election of United States Senators by popular vote will (1) afford an efficient remedy for the many evils resulting from the present system of Senatorial elections—such as length of time consumed and frequent failure to choose, and the consequent distraction of the legislative mind from its proper business; (2) discourage the use of improper means to influence the control of Senatorial elections; (3) greatly diminish the temptation to gerrymande; (4) enlarge the political rights of the individual voter relating to suffrage; (5) eliminate from elections involving the selection of members of the legislature one great cause for irritation and unseemly contention wherein as a rule the question upon which everything is made to turn is as to how this or that man will vote for Senator, rather than upon the question as to his fitness for the office of legislator; and (6) effectively tend to the destruction of "boss rule." Senator Mitchell contends that a thoroughly aroused and enlightened public opinion demands the change, and urges that this demand be respected by Congress to the extent of giving the people of the several States, through their representatives in the legislatures, an opportunity to pass upon the ques-

tion; for, in his opinion, "no harm is likely to come to representative republican government in America by intrusting to the qualified electors of the nation the right to choose by popular vote the men who are to make their laws."

Thus The Forum, as usual, contains not one only but a number of articles, written especially for The Forum, by writers of world-wide distinction, who are the highest living authorities in their particular fields of thought. At its present price—25 cts. a copy—The Forum is at once the best and the cheapest review.

The June Atlantic begins with another installment of the letters of Dante Gabriel Rossetti edited by George Birkbeck Hill. This installment contains the letters for 1855. Striking features in this issue are an article upon The Politician and the Public Schools, Cleveland, Ohio, and Restriction of Immigration by President Francis A. Walker.

Other readable articles which give this number a varied interest are The Oubliette, one of Mrs. Catherwood's sketches of French Provincial Life; The Bird of the Musical Wing, by Mrs. Olive Thorne Miller; Orestes Brownson, the Catholic American, a striking biographical study, by George Parsons Lathrop; The Opera before the Court of Reason, by W. F. Biddle; Lord Howe's Commission to Pacify the Colonies, an important historical contribution, by Paul Leicester Ford; embodying a hitherto unpublished manuscript.

Fiction is represented by a further installment of Henry James' absorbing serial, The Old Things; a short story of Alabamma life, The Price of a Cow, by Mrs. Elizabeth W. Bellamy, and The Whirligig of Fortune, an incident of the French Commune, by T. Russell Sullivan.

The book reviews include a review of John T. Morse's Life and Letters of Oliver Wendell Holmes and reviews of recent publications on history and art. Poems and the usual departments complete the issue.

Houghton, Mifflin & Co., Boston.

For more than a half-century Littell's Living age has been republishing the best and most important papers, biographies, reviews, stories, verses and sketches of travel, to be found in the foreign (especially the British) magazines, quarterlies and literary weeklies. During this long period it has been prized and commended for the judgment and taste exhibited in its selections. Hardly one of the eminent British authors of the past fifty years can be named who has not been represented in these pages.

Its latest issues contain many articles of present interest and permanent value. The following are worthy of special mention:—"Czar and Emperor," by Karl Blind; Slatin Pasha and the Sudan," by Capt. F. D. Lugard; Matthew Arnold," by Frederic Harrison; "Nature in the Earlier Roman Poets," by Evelyn Martinengo Cesaresco; "Jean Baptiste and his Language," by Howard Angus Kennedy; "Stray Thoughts on South Africa," by Olive Schreiner; "A Heroine of the Renaissance," by Helen Zimmern; "A Winter's Day in Mid-Forest," by Fred. Whishaw, and 'The Story of an Amateur Revolution," by a Johannesburg Resident. In fiction, a short story, by Mary E. Mann, is particularly readable with its mixture of pathos, humor and superstition.

Published weekly, at $6.00 a year, by Littell & Co., Boston.

The complete novel in the June issue of Lippincott's is "from Clue to Climax," by Will N. Harben. It is a tale of murder and hypnotism, in which an extremely able detective and a physician of the new school join forces to clear the innocent and run the guilty to earth.

"A Fellow-Feeling" is by Edith Brower, perhaps the only author who can write readable stories about the coal region.

H. C. Stickney, in "Timely," tells of some "ways that are dark" among the Chinese of San Francisco. "The End of a Career," as briefly described by Harry Irving Horton, was that of a male flirt.

I. J. Wistar supplies an instructive article on "Criminal Jurisprudence." Owen Hall discusses the prospects and conditions of "Naval Warfare in 1896," giving the facts and figures as to the world's various navies, and concluding that Great Britain is likely to be able to hold her own.

Concerning the "Feigning of Death by Animals," Dr. James Weir, as a result of special microscopic studies, presents facts that are largely new. Dr. Charles C. Abbott offers some observations on "The Changeful Skies."

Edith Dickson writes on the "Youthful Reading of Literary Men," Willian Trowbridge Larned makes some remarks "After Seeing a Poor Play." "Woman in Business" is discussed by Mary E. J. Kelly.

A second article on General and Mrs. Washington, by Anne Hollingsworth Wharton, deals with their official life. Like its predecessor, it is abundantly illustrated.

The poetry of the number is by Carlotta Perry, Grace F. Pennypacker and Charles G. D. Roberts.

The political situation in the United States on the eve of the Presidential nominating convention is admirably covered by the June Review of Reviews in its departments of "The Progress of the World," "Current History in Caricature," and "Record of Current Events." Prospective convention goers will be greatly interested in Dr. Shaw's sketch of "St. Louis: This Year's Convention City." Apropos of this season's rush of gold-seekers to Aiaska the Review presents an authoritative description of the Alaskan gold-fields prepared by a member of the staff of the U. S. Geological Survey. There is also an interesting illustrated account of the services of that intrepid pioneer, Dr Sheldon Jackson, by whose efforts reindeer have been introduced into Alaska, and who has done so much to establish civilization in Seward's great purchase. The coronation of the Russian Czar is a fitting occasion for the publication of a character study of that modest young ruler. The Review gives in this number the most complete statement ever published of the methods and results of the Government investigation into foods, commenting at length on the work of Professor Atwater, of Wesleyan University. Timeliness and practical interest are the characteristic qualities of the June Review of Reviews.

The North American Review for June opens with a most suggestive and practical paper by Mr. Andrew Carneigie, entitled. "The Ship of State Adrift," in which he points out the deterioration since 1890, of the United States in national wealth and commercial prosperity, and in plain, logical, and convincing statements, shows why such a state of things exist.

An article of great contemporary interest in Scribner's for June is Henry Norman's vivd picture of the present condition of affairs in the most crucial point in all Europeon politics—the Balkan Peninsula, where a half-dozen little Principalities are the buffer between the great Powers of Europe. A few months ago Mr. Norman made a visit to this region, and this article is the first presentation of the impressions then gathered of Roumania, Servia, Bosnia, Herzegovina, Bulgaria, and Montenegro. The crisis brought about by the Armenian question is of course intimately related to affairs in the Balkans, and Mr. Norman's article is a clear presentation of the exact situation of the whole Eastern question as it appears at the present moment to a trained observer. Abundant illustrations of the picturesque countries visited are made from Mr. Norman's own photographs.

Prolapsus Uteri.

On May 15th, at the Kansas State Medical Society, which convened at Topeka, Dr. C. E. Pontius, of Fairview, Kansas, read a most interesting and scholarly paper on the subject of "Prolapsus Uteri, Its Cause and Treatment."

The doctor advanced the idea that the present system of dress fashions was the chiefest of all causes. In substantiation of this he called attention to the fact that almost invariably Prolapsus Uteri is accompanied by the general prolapsus of the pelvic viscera due to the constrictions of tight garments.

In continuation of this argument he said that "succeeding generations of women who have conformed to these unnatural constrictions have been unable to resist the hereditary tendency to ultimate deformity."

He showed in a very convincing manner the error of suspending garments from the hips, stating that "the ideal and correct manner of suspending a garment is from the shoulders, thus leaving the ovarian regions, so commonly the seat of aches and pains, free and easy." He also said: "We do not hesitate to place upon the heathen Chinese the stigma of barbarism for the baneful practice of bandaging the feet, and yet the civilized women of to-day, do a far more barbarous act when they constrict their bodies to the form of an hour glass."

In the treatment favorable mention was made of the knee chest position. One case in his practice was cited where a prolapsed transverse colon, due to the errors of tight lacing, and causing constipation, was permanently restored by this means. He would put the ligaments to rest with tampons until restoration obtained, deprecating the use of all hard rubber pessaries as injurious. In uncomplicated cases of prolapsus of the third degree he would urge the Alexander operation in preferense to ventral fixation, it being extra-peritoneal, safe and comparatively easy.

Pepsin is undoubtedly one of the most valuable digestive agents of our Materia Medica, provided a good article is used. Robinson's Lime Juice and Pepsin, and Arom. Fluid Pepsin, (see page 741, this number,) we can recommend as possessing merit of high order.

The fact that the manufacturers of these palatable preparations use the purest and best Pepsin, and that every lot made by them is carefully tested, before offering for sale, is a guarantee to the Physician that he will certainly obtain the good results he expects from Pepsin.

Strichnine and Nitro-Glycerine and the Treatment of Pneumonia.

On May 28th, Dr. F. W. Thomas, of Marion, O., read a paper on "Strychnine and Nitro-Glycerine in the Treatment of Pneumonia," in which the writer takes the ground that pneumonia was being recognized as a systemic disease of which the inflamed lung is a characteristic lesion accompanied by great nervous depression and overtaxation of the heart's action. The neurotic element in acute pneumonia is now quite generally recognized. The nervous system is shocked by the poisonous effects of the disease, effecting also the heart action somewhat similar to the cardiac failure so frequently noticed in diphtheria. The stagnation of the blood in the lungs puts extra strain upon the right heart in its efforts to propel the blood against a strong resisting force. The result is overtaxation and often complete failure of the cardiac muscle, which makes the rate of mortality very high in this disease. Nor has the mortality been lowered in the past half century.

Accompanied with the heart failure is the demoralization of the nervous system, and the patient has not sufficient nerve-stamina to resist the disease.

The indications for treatment then are to employ such remedies as will sustain the heart action, if possible, and tone up the nervous system that it may withstand the great strain. For this purpose the two drugs, strychnine and nitro-glycerine, are among the best, if not the *very* best, agents we have to-day for that purpose.

The best authorities in therapeutics, tell us that strychnine increases the pulse-beat and pulse-rate by the stimulation of the heart muscle and its ganglia, while the rise of arterial pressure which it causes is due to stimulation of the vaso-moter centre, and is, therefore, one of the most constant and powerful stimulants to the respiratory centre that we have, while nitro-glycerine is almost universally regarded as a stimulant to the heart action and the nerve centre when there is a tendency to cardiac failure. These remedies then in their physiological action give the very help most needed in the treatment of severe pneumonia.

In order to get the best results the dose should, as a rule, be large, pushed in some cases to their fullest toleration, These tonics should be given at once upon the slightest indication of a feeble pulse, or a disturbance of the nervous system, and used as the case demands, to tide the patient over the crisis of the disease. The greatest danger lies in the second stage of pneumonia, or that of red hepatization.

An illustrated case was given in his own practice this spring when a man, 35 years of age, suffering from a violent attack of croupous pneumonia, in which the respiration reached 75 per minute, with a pulse of 120, and continuing so for two days, at which time the respirations dropped to 50, and pulse 100, after giving the patient the $\frac{1}{20}$ of a grain of sulphate of strychnia every two hours, and the $\frac{1}{100}$ of a grain of nitro-glycerine at every alternate hour. for 48 hours. This cleared up the delirium, the cyanosis, and the dyspnœa, and sustained the vitality, which was being rapidly overwhelmed, until defervescence occurred. The man recovered, but strychnine was continued from four to six hours till the twentieth day, as a sustainer to the heart.

Communications were recently sent to several large hospitals in New York and Philadelphia with reference to the treatment used in severe

pneumonia. Nearly every answer came back that strychnine and nitroglycerine was freely given, and great reliance was placed upon their action in sustaining the heart. With the free and judicious use of these remedies, it is hoped and believed that the mortality rate will be greatly lowered in the future.

Vomiting of Pregnancy.

At the annual meeting of the Nebraska State Medical Society, held at Lincoln, Nebraska, May 18th to 21st, 1896, Dr. Butler, of Howard, read a paper on Hyperemesis, persistent vomiting in pregnancy, giving report of a case carried through to a favorable termination. Persistent vomiting continued for 18 weeks. Patient was kept in bed, and the last eight weeks nothing at all could be taken by the stomach. During this last eight weeks of the Hyperemesis hypodermic injections of strychnia nitrate (P. D.) was injected into the arm, $\frac{1}{30}$ grain three times daily, on the hypothesis that the exaggerated pernicious vomiting in this case was of nervous origin, and after having given the local treatments, painting mouth of womb with tr. of iodine, and tr. iodine, carbolic acid and glycerine preparation, with no improvement. At the same time, during this past eight weeks, rectal alimentation was resorted to, to sustain patient's vital forces until strychnine hypodermically could control the vomiting of nervous origin. For eight weeks, in every four hours, day and night, four ounces of either beef peptonoids diluted, beef juice, or the juice from wild game, or soup made from fowls unseasoned, or milk, was used per rectum, the bowel being first washed out with a copious injection of warm water. At the same time one-half ounce of hot water was administered by the mouth three times per day to keep the stomach from shrinking.

At the end of eight weeks of this treatment, patient began to take kumysgen, and finally buttermilk, in quite large quantities, and sweet milk, and rare beef cut up in small bits, and heated through in a little fresh butter without any seasoning. This constituted the diet until birth. During the last month the patient suffered severely from albuminuria and general anasarca. No medicine could be taken to control it. Hot baths had to be resorted to once in ten days, Birth came on twenty-one days prematurely—patient chloroformed during labor, which was conducted under perfect aseptic regimen—patient giving birth to twins, a boy and girl. They were small, long, active little fellows, weighed five pounds.

Early temperature of chamber was kept at 98° for the first few days, and never less than 80 to 85. The first two weeks mother soon gained, was able to *nurse* both of the children, who are now one year old, large, stout, active children. Neither mother nor children have seen a day's sickness during the year.

This is a rare case, as the mother was 35 years old, and this the first pregnancy. Had been married seven years. The mother had had good health since reaching maturity, but had a continued attack of chorea when a child.

The paper when read at the Society, met with more than usual interest, and elicited an interested discussion.

The hypodermics of strychnia was kept up from time began, four months before pregnancy, until three weeks after the children were born

Special Regulations for the Second Pan-American Medical Congress

To meet in the City of Mexico on the 16th, 17th, 18th and 19th of Nov., 1896.

ENROLLMENT.

Art. 1. In order to be properly enrolled, each member of the Congress will pay to the Treasurer thereof in the City of Mexico, the sum of five dollars gold.

GENERAL SESSIONS.

Art. 2. There will be one opening session, one closing and one intermediate session of a purely scientific character.

Art. 3. The opening session, which will be of a solemn character and presided over by the Supreme authority of the Nation, besides being attended by the members of the Congress, will also be attended by the members of scientific societies, and other distinguished persons who may be invited. The session will be opened with the report of the General Secretary.

This will be followed by a speech of welcome, pronounced by the President of the Congress.

Two members will then speak on scientific subjects, and they will be followed by a speech from the President of the Republic. It is strongly recommended that the scientific speeches should be of short duration

The intervals between the speeches will be filled up with musical performances.

Art. 4. At the closing session, the General Secretary will notify the place designated by the Congress for holding the third meeting.

Art. 5. The Treasurer will present his accounts to the Congress, showing the disbursements made of the funds entrusted to his care.

Art. 6. A scientific speech will be delivered and a short speech by one Representative of each one of the nations attending the Congress.

Art. 7. In the intermediate session, four speeches will be delivered on general matters, by persons who are highly distinguished in medical science, and who, having been in due time invited to do so, have accepted the commission; one of these speeches being pronounced by a Mexican physician, who shall be invited to do so by the Committee of Manage ment.

Art. 8. No discussions will be held in the General Sessions.

SESSIONS OF THE SECTIONS.

Art. 9. These sessions will be held from 8 to 12 A. M., and from 3 to 5 P. M., in the places that may be designated by the Organizing Committee. They shall be presided over by the President of each section, alternating with the Vice-Presidents of each one of the nations that are represented in the respective sections.

Art. 10. The person who may be appointed by the Committee of Organization, will be the ex officio Secretary of each section, and he will fill his post alternately with the Secretaries of the nations who may be represented in the sections; but should the latter not be present, their places will be supplied by the President in office.

Art. 11. The President will direct the discussion in accordance with the order of the day, and will decide all questions that may arise, and that may not be provided for in these regulations.

Art. 12. The ex-officio Secretary will make out the minutes. and for that purpose, besides his own notes, will collect those of the Secretaries who may have acted in the section. He will also collect from the persons who may have spoken, the written extracts referred to in Art. 19.

Art. 13. All questions relating to the debates which are not provided for in these Regulations, will be decided in accordance will general parliamentary practice.

Art. 14. The voting will be by name or by putting the question.

PAPERS, EXTRACTS THEREOF AND DISCUSSIONS IN THE SESSIONS OF THE SECTIONS.

Art. 15. All papers will be presented in writing.

Art. 16. Each author will forward to the Secretary of the Organizing Committee in the City of Mexico and before the first day of August of the present year, an extract not exceeding 300 words, of the paper to be presented by him. These extracts will be printed in English, French and Spanish, and will be distributed to the members of the Congress, before the session in which they are to be read.

Art. 17. No paper will be announced which is not accompanied by this extract; but the authors who comply with these conditions, will have a right to have their work published intact in the transactions of the Congress.

Art. 18. The reading of the papers in the sessions must not last more than 20 minutes, when the papers are so long that they cannot be read within that time, the authors will give extracts from them, either in writing or by speech; but they will be published intact in the transactions of the Congress and in the language in which they have been written.

Art. 19. The extracts referred to in the preceding article will be delivered at the same time as the papers, to the Secretary of the Section to which they pertain.

Art. 20. The members of the Congress who may take part in the discussions in any section, will present their speeches in writing at the termination of the sessions, to the respective Secretaries of such sections and they will also be published in the transactions.

Art. 21. The papers which have been announced for reading in the order of the day in each section, will serve as subjects for discussion. In such discussions, no speaker will be allowed to speak more than once and for five minutes; but the author of the paper under discussion, will be allowed to reply, if he considers it necessary, in one sole speech, which will not go beyond ten minutes.

AUXILIARY COMMITTEES IN THE MEXICAN REPUBLIC.

Art. 22. These Committees will be appointed by the Committee of Organization and will be composed of one member for each Local Medical Society, or in their absence, of one physician for every centre of population. They will co-operate with the Committee of Organization in promoting the success of the Congress. Said Committees will be appointed during the first months of the present year.

EXECUTIVE COMMITTEE.

Art. 23. In order to form this Committee, the Organizing Committee will appoint seven members, including the President, Secretary, Treasurer, and the Mexican representative in the International Executive Committee,

and such members will attend to everything relating to the business of the Congress, in accordance with the regulations that they may adopt for that purpose.

Mexico, January, 1896.

Dr. Manuel Carmona y Valle. Dr. Rafael Lavista.

Dr. Eduardo Liceaga.

Anterior Displacement of the Head of the Femur (Congenital).

Anterior displacement of the head of the femur is very infrequent, only two or three such cases having been recorded in America.

At the American Orthopædic Association Dr. DeForest Willard presented such a case, a child 11 years old, where the head of the bone lay directly above the acetabulum, the usual site being the posterior dislocation.

The deformity usually consists in a false acetabulum, or in an oval shaped one, permitting the head of the femur to slide freely in its peculiar shaped socket. In the present instance, owing to the position of the head of the bone, only a moderate amount of lordosis was required to maintain equilibrium. The limb was short, but was not characterized by the straddle seen in posterior displacement. The head and neck of the bone could be plainly outlined by the finger. Adduction and rotation were normal, but abduction was limited. Traction did not alter the position of the head of the bone. The action of the peri-articular muscles was excellent, and the boy could stand upon tip toe on the affected side.

The action of the limb being perfect, except as to its length, no operative measures were instituted; the limb was only lengthened artificially.

The cases of so-called congenital dislocation of the head of the femur may be due to alterations either at the site of the acetablum, or of the shape of the socket, or of the shape of the head and neck of the femur The deformity may be produced by intra-uterine traumatism; or by injury occurring at the time of birth, particularly in breach presentation where strong traction has been made upon the legs or where hooks have been used in the groins.

European Endorsements.

The London Lancet of March 28th, 1896, says editorially:—"Antikamnia is well spoken of as an analgesic and antipyretic in the treatment of neuralgia, rheumatism, etc., etc. It is not disagreeable to take, and may be had either in powder or tablet form, the latter being made in five-grain size. It is described as not a preventive of, but rather as affording relief to, existent pain. By the presence in it of the amine group it appears to exert a stimulating rather than a depressing action on the nerve centres and the system generally. If this be so, it possesses advantages over other coal-tar products."

The concise endorsement of the Edinburg Medical Journal, which appeared in the January issue, is equally interesting:—"This is one of the of the many coal-tar products which have lately been introduced into medicine in Scotland. In doses of three to ten grains, antikamnia appears to act as a speedy and effective antipyretic and analgesic."

Xeroform (Tribromphenol-Bismuth), A New Antiseptic in Powder Form.

By Dr. E. Heuss, of Zurich, Switzerland.

The general mistrust that is prevalent to-day on the part of the medical profession in regard to the various new remedies that are advocated may cause a preparation that really deserves a place in the medical armamentarium to be cast aside in company with other and worthless compounds. But a lucky chance may sometimes rescue such a remedy, and give it the permanent place that it deserves.

Such seems to be the fate reserved for *Tribromphenol-Bismuth*, or *Xeroform*. Of course Tribromphenol-Bismuth is not new to the medical world; it earned its spurs in the last cholera epidemic in Hamburg; but it has remained very much in the background. It is absolutely unknown, as regards its properties, as a *most valuable antiseptic for wounds.*

Now, I am naturally unwilling to expose myself to the charge of increasing our already over-laden materia medica with still another item. But I have used Xeroform for nearly three years in my practice, and I have learned to value it. A number of other physicians have given a similar judgment, and have even been enthusiastic in its praise. Its properties and the indications for its use have been, to a certain extent, decided. I cannot, therefore, neglect to call more public attention to this new dry antiseptic.

We can demand of a new remedy that is destined to compete with old and tried drugs, in the very first place that it shall possess all their advantages without any of their defects; and in the second place that it shall, if possible, have certain special good features of its own. I think that I can affirm that Xeroform at least partly fulfils these requirements.

I will admit that it is difficult to judge of the value of a new antiseptic above all other drugs. Bacteriological emperiment is frequently entirely at fault, as was the case with iodoform. Theory may cast aside a remedy as worthless, whilst experience may recognize in its use one of the most valuable achievements of therapeutics.

It is well known that the phenols, viz.: carbolic acid, cresol, pyrogallol, naphtol, etc., are the most powerfully antiseptic of all the non-mineral remedies at our disposal. It is unfortunate that their poisonous and caustic properties stand in the way of their unlimited medicinal use. These deleterious qualities are dependent on the free uncombined hydroxyl group that they contain. They disappear when that hydroxyl group is combined; phenol with salicylic acid giving us salol, creosote or guaiacol with carbonic acid giving us the carbonate of creosote or guaiacol with carbonic acid giving us the carbonate of creosote or guaiacal. Compared with free phenol, creosote, and guaiacol, these combinations are non-poisonous. Thus creosote-barbonate can be given in daily doses of 20 gms. (5 drachms), without difficulty, whilst creosote alone in any such dose would cause a fatal gastro-enteritis.

Unfortunately, however, with this combining of the hydroxyl group, with this loss of poisonous properties, these phenols lose the greater part of their antiseptic action. That salol, creosote-carbonate, guaiacol-carbonate, and the rest still have such excellent therapeutic effects depends on the fact that, by chemical action in the intestine or in wounds, they

are gradually decomposed again; salol, for instance, becoming split up into carbolic and salicylic acids. This reconstruction of the phenols in the body, however, takes place so gradually and over so large a surface, that there is no question of the occurrence of a poisonous or local cauterizant effect, as would be the case after the ingestion of carbolic acid or creosote.

The formation of the phenols under these circumstances in wounds, on the skin, or in the intestines in an acute disease like cholera, is so slow and so imperfect that we frequently fail to get a satisfactory result from their use. In these cases we would desire to have the phenols so lightly united that they could still more readily and more rapidly be released from their non-poisonous combinations. This can be effected by the combination of the phenols with bismuth. These compounds, the bismuth phenolates, are quickly decomposed by contact with the bodily fluids,and soon give off sufficient quantities of phenol. Thus Tribromphenol-Bismuth has given very good results in cholera.

Tribromphenol-Bismuth, or Xeroform has proven to be the best of this new group of antiseptics: in the first place, because besides its 49.5 per cent. of oxide of bismuth, it contains 50 per cent. of Tribromphenol as against about 20 per cent. of phenol, and naphtol in the other phenolates. In the second place it is the best because. as Hueppe has shown, *Tribromphenol has a much stronger antiseptic action than has phenol.*

Properties: Xeroform or Tribromphenol-Bismuth, which the manufacturers the Chemische Fabrik Von Heyden, in Radebeul Dresden have most liberally placed at my disposal for experimental purposes, is a bismuth phenolate with the formula $C_6 H_2 Br_3$-O-Bi-O. It is decomposed by strong acids, as well as by alkalies, and specially with the aid of heat, into tribromphenol and bismuth oxide. It is a yellow, neutral, insoluble, very fine powder, and does not decompose under the influence of light. It has a very slight phenol odor, no taste at all, is almost non-poisonous, and acts as an indifferent substance to the most sensitive mucosæ of the digestive organs, the naso-pharyngeal space, etc.

Xeroform has little action on the human organism, but on the other hand it is so poisonous to the comma bacillus that Hueppe declares its action on the cholera bacteria to be almost a specific one (1). Hueppe also proved during the cholera epidemic in Hamburg that Xeroform was undoubtedly superior to calomel in that disease Whilst the light and medium cases all got well under Xeroform, and the autopsy of the five cases that died in his division out of the eleven that entered the hospital in the last stages of the disease, *showed by cultures of the intestinal contents an absolutely negative result as regards the comma bacillus.*

Whilst Xeroform has thus stood the test as a most efficacious intestinal antiseptic, the records of its use as an antiseptic in wounds are very meagre, and almost absent from literature. Privately I have heard from Professor Hueppe, and he has permitted me to make use of the information, that he has used Xeroform a good deal externally, and with success; obtaining especially good results in large abscesses. Thus he treated with it a lady with a severe pyæmia, several large metastatic abscesses and deep phlegmons, following a wound and subsequent lymphangitis. The patient's general condition was very bad. The location of the abscess

(1) Berl. Klin. Wochenschr, 1893, p. 162.

was such that it could not even be thoroughly washed out. He had to be satisfied with a mere superficial cleansing of the wound. "But the wound healed steadily and without any complication under Xeroform, and in a remarkably short time."—(HUEPPE).

I first became acquainted with Xeroform in the spring of 1893. I had been treating a student affected with a serpiginous chancroid of the sheath of the penis for weeks without result. After I had exhausted all the remedies usually employed, in despair I took up the Xeroform, which I had never used, though I had received it months before. The result was astounding; from the moment of its application the painfulness of the ulceration diminished, the inflammation retrogressed, and the ulcer no longer spread. On the third day there was a marked tendency to cicatrization, and by the twelfth day the ulcer, which occupied half the surface of the dorsum of the penis, was fully healed.

Since that time I have used Xeroform in other chancroidal cases, and always with the most favorable effects. If there were no complicating buboes the affection ended in from 8 to 14 days, almost as if the drug had a specific action. One cardinal condition, however, is requisite, not only in chancroid but also in all other ulceration, and that is that the Xeroform should come into direct contact with the living tissues, and that all pus and necrotic material should be removed from the wound. I shall return to this later. When the ulcers were very foul, I began the treatment with a cauterization with pure liquefied carbolic acid, to hasten the casting off of the detritus, etc.

Similar good effects, viz.: cessation of suppuration, decrease of sensitiveness, diminution of odor, non-extension of inflammation, and rapid cicatrization occurred also under Xeroform in other suppurative processes, such as infected wounds, panaritiums, suppurative buboes, &c. *Neither I nor the other physicians, who experimented with the drug, ever saw inflammatory reaction in the surrounding tissues, no matter how freely the remedy was used.* There were no complicating erythemas, dermatites, or eczemas, as so often occur after iodoform. On the contrary, the bases of the ulcers soon assumed a healthy appearance and the inflammatory symptoms rapidly retrogressed.

This latter most valuable property, in addition to the decreased necessity of frequent changings of the dressings, made Xeroform especially valuable in the treatment of ulcers of the leg. After the surface of the ulcer had been thoroughly cleansed, and its callous edges softened with hot compresses, perhaps with the assistance of irritant solution, as the vin. camphorat, or the aq. phagedænic. lut., they healed rapidly under Xeroform with the zincogelatine bandage, and without the patient going to bed.

In three cases of ulcus cruris, where I was compelled to do transplantation after Reverdin, I believe that I could also trace the beneficient action of the Xeroform. In all, some 32 lentil-sized pieces of epiderm with the papillary layer were removed, partly from the thighs and partly from the forearms, and after application were covered with Xeroform and boric omtment mull. Only a single one of these fell off; whilst under the boric acid mull alone the loss was usually a quarter to one-half of the grafts.

Fresh and non-infected wounds, as after excisions, healed entirely aseptically, and without reaction. In burns Xeroform, like iodoform, ap-

pears to quiet the pain. In a single case, which I did not myself see, there was fairly acute pain for three hours after the application of the Xeroform.

As I have learned both by word of mouth and by writing, the *exceedingly rapid cicatrization under Xeroform as compared with Iodoform, Dermatol, etc., was a matter of astonishment* to other physicians that used it.

I used Xeroform also in suppurative inflammatory affections of the skin, impetigo, sycosis, &c., but the results were not so brilliant as compared with other remedies. In eczema impetiginosum and eczema madidans, I saw a rapid cessation of the secretion and healing under a 10 per cent. Xeroform paste; after that I had to employ the ordinary anti-eczematous remedies. In some cases of simple local pruritus, of the vagina, anus, &c., it stopped the itching. Certain tuberculous ulcerations and glands cicatrized rapidly under Xeroform, after they were curetted out. In other skin diseases, for reasons that can be readily understood I did not use the drug.

Our common opinion was that Xeroform had a very favorable action in the superficial affections of the mucous membranes. As a dermatologist I have had but little experience in this special line, but I will quote a few passages from the various letters that I have received. Dr. S. of R., writes to me: "Among other cases I have used Xeroform in some lacerated and contused wounds of the upper lip, where suturing was impossible, and with very good results. I am inclined to think that the healing would have been by no means so rapid under iodoform. Xeroform quickly dries up ulcerated surfaces." Dr. R., docent in otology at Z., "I used Xeroform powder to insufflate into the ear and the nose since February 22d, 1895, and I can testify that it has very excellent astringent and siccative properties." In gynæcological practice also Xeroform does exceilent work, as is shown by the unanimous judgment of prominent gynæcologists. Thus Dr. L. in Z., writes: "In gynæcological cases, tamponnade, &c., I decidely prefer it to iodoform." Dr. W. of W., says: "Its use as an application for erosions of the cervix was very satisfactory. I treated them either with Xeroform alone, or I used the remedy after curetting the cervical canal and the erosion. The rapid covering of the ulceration with epithelium, and the quieting effects on the pain were very striking."

I have recently begun to use Xeroform as an insufflation or, in suspension, as an injection in gonorrhœa The results so far obtained are very encouraging; but I am not yet prepared to give an opinion on the subject.

According to Hueppe, Xeroform, though a very powerful, is a fairly harmless intestinal antiseptic and he gave it internally to adults in cholera in daily doses of from 5.0 to 7.0 gms. (75 to 105 grains) I therefore administered the powder, which has hardly any taste at all, in 0.5 to 1.0 gm. doses (7½ to 15 grains) three times daily, in suitable cases of intestinal catarrh, such as the summer diarrhœa of children, in chronic urticarias, certain infantile eczemas, etc., My results were favorable; but other intestinal antiseptics (bismuth salicylate, betanaphtol-bismuth, and creosote) seemed to do as well.

How can we explain these anti-bacterial, anti-fermentative, and siccative, properties of Xeroform?

Hueppe (2) explains them as follows: In the alkaline intestinal juice Xeroform is split up into its two components, tribromphenol and bismuth oxide. Whilst the first spends its energetic anti-bacterial action on the comma bacillus the bismuth oxide probably combines with some part of the cholera toxines. The proof of this last supposition is still wanting; and the exact rationale of the well-known therapeutic action of the bismuth compounds is still a matter of doubt. But, as Nencki has pointed out, (3), that the bismuth salts form insoluble compounds with albumin, albuminose, alkaloids and ptomaines, we may assume that they do the same thing in the intestines with the products of bacterial life, the toxalbuminose, and the ptomaines. By uniting with them in insoluble and non-absorbable combinations, they prevent their poisonous action.

We must assume the occurrence of a similar process when Xeroform is applied to lesion and to mucous membranes. The alkaline tissue fluids decompose the Xeroform; the tribromphenol that is released acts anti-bacterially on the micro organisms that may be present, and the bismuth oxide acts as an anti-fermentative and drying agent. Since the Xeroform itself is a fairly indifferent body, it is only its components when dis associated by the alkaline tissue fluids that are effective. Hence the absolute indifference of the insoluble drug on the surface of the skin with its acid reaction is explained in part; as is also the requisite condition that experience has taught us, that Xeroform to unfold its usefulness must come in contact with the living, alkaline tissue fluids of the base of the ulcer or with the mucous membrane to which it is applied.

In consequence of its very slow decomposition (4) small quantities only of free tribromphenol and bismuth oxide are set free, and the wound is constantly kept in aseptic condition. Perhaps it is on account of the moderate irritant action of the tribromphenol that the denuded surface looks fresher, the transplantations do so well, and no pus accumulates under the crusts, as is so frequently the case with iodoform, dermatol, etc.

One very important property of iodoform, that of promoting granulation, is decidedly less marked in Xeroform; a defect, which it shares with airol, aristol, europhen, and other powdered antiseptics. In certain cases, therefore, when the granulations are deficient, iodoform should be employed first, and, so soon as they were sufficiently vigorous, should be replaced by Xeroform to obtain a more rapid cicatrization.

Although the results of clinical experience with Xeroform are uniformly favorable, bacteriological experiment has been undecided and contradictory. Whilst Hueppe in his observations on cholera patients records the brilliant results noted above, Draer (5) arrives at a less favorable conclusions as the result of very thorough bacteriological research. The antiseptic action of Xeroform, on the comma-bacillus at least, is, according to Draer, a very slight one. These experiments are, however, entirely valueless, since they were the usual ones made with the artificial cultures in the test tubes. The experimenter has neglected to note the fact that Xeroform, in itself a rather indifferent substance, does not act as such in the body; that it undergoes chemical reaction under the influence

(2) Hueppe, l. c.

(3.) Wratsch, 1893, No. 1.

(4) I hope to be able to give a more exact account of the chemical processes later.

(5) Centralbl. fur Bact. u. Parasitenkunde, 1893, No. 7.

of the tissue fluids, and that it is only the compounds resulting from this reaction, and more especially the free tribromphenol, which has the antiseptic action, But even DRAER'S experiments showed the very vigorous antiseptic action of the Xeroform. Whilst dissolved and therefore fully active sozoiodole was absolutely inefficacious, Xeroform in 1 per cent. suspension, and therefore in rather inactive condition, killed the comma-bacillus in 24 hours. (6) I do not understand how DRAER could have used free sozoiodolic acid for his comparative experiment. He might have compared this with free acid tribromphenol. Taken as a whole, then these experiments of DRAER offer renewed proof of the fact that bacteriogical experimentation done in the usual way is frequently opposed to the results of practical experience. They have in fact therapeutic value only when the chemical changes that the substance undergoes in the body are fully taken into account. Iodoform, that we value so highly today, was at one time about to be rejected on account of the negative result of bacteriological experimentation; for it too must first be changed by the body fluids; and then, in altered form, it exerts its characteristic action.

Is Inherited Syphilis Contagious.

According to Dr. R. W. Parker the children of syphilitic parents very frequently show manifestations of a disease which is almost universally called "inherited syphilis."

In a large proportion of the cases this inherited disease is not syphilis at all, in that the disease is non-contagious, and would be better named "inherited from syphilis."

This inherited disease is true syphilis only if it conforms to the ordinary tests which pertain to contact syphilis, and prove to be infectious and contagious.

The children of syphilitic parents occasionally inherit syphilis.

The mother suckling a child with such a disease may be infected by it.

A healthy wet-nurse and other persons brought into contact with such a child are even more liable to be infected by it than the mother.

Lymph taken from such a child, even although apparently well at the time, will probably, or possibly, invaccinate syphilis.

In reply to the question, Can a healthy woman give birth to a syphilitic child? the answer must be No.

Many women give birth to children who suffer from what is called "inherited syphilis" without themselves appearing to be infected. The explanation is obvious; this "inherited syphilis" is not syphilis in the true sense, and the mother's so-called *escape* depends on this fact.

There is no recent clinical evidence which fully realises Colles' teaching, viz., a mother suckling her own syphilitic infant and escaping an infection to which a healthy wet nurse suckling the same infant and other members of her family, who have merely handled this infant, have succumbed, the latter facts being essential, if only to establish the contagiousness of the infant's disease in any and every given case asserted to be "inherited syphilis."

(6) l. c. p. 202.

The Treatment of Specific Urethtitis in the Male.

At a meeting of the Ohio State Medical Society, which took place at Columbus, May 27-29, 1896. Dr, William Thomas Corlett, of Cleveland, presented an interesting clinical report of the various methods of treating gonorrhœa which had been employed in his dispensary and hospital services during the past three years.

Beginning in September, 1893, all cases of gonorrhœa were subjected to a local antiseptic treatment,, which consisted of flushing the genito-urinary tract with a solution of mercuric bichlorid, which varied in strength from I-50,000 to I-20,000, the average being I-30,000. The average duration of the disease was six weeks, complications 60 per cent. of which posterior urethritis contributed the greatest number. In this series the treatment was begun during the first week of the disease.

In another series of fifteen cases a solution of silver nitrate was used in the same way, I-25,00. In this series the duration was somewhat longer, being six and three-tenths, although the complications were but 58 per cent. posterior urethritis being also most frequently met with.

The following year (1894) efforts to destroy the gonococcus *in situ* by direct applications were discontinued, or modified as follows: During the first week, in some cases during the first fortnight, the treatment consisted in regulating the diet. giving easily digestible and bland articles, such as milk, bread, soft boiled or poached eggs, etc. During the day three pints of hot water were taken in divided doses one hour before meals. Bodily exercise was restricted as much as possible, and if much pain or smarting was complained of an infusion of triticum repens, or tablets of salol and boric acid, containing five grains each, were given four times a day. No local treatment was employed.

As soon as the inflammation began to subside, which usually took place during the first fortnight, creosote in capsules of from one to two minims, or a modified Lafayette miture was given after meals.

℞ Creosote, gtts.....xij
Bals. Copaibæ..... .....
Spts. nirici dulcis,.....aa. ℥j.
Liq. potass.....℥ij,
Ext. glycyrrhizæ.....℥ss.
(misce et adde)
Ol. gaultheriæ, gtts.....xvj.
Syr. acaciæ.....℥vj.
Sig.....℥iv. t. i. d.

As soon as the disease began to subside, as evidenced by the discharge becoming pale and watery, and provided no complications were present, local applications were made. For this a rubber syringe holding from one two ounces, and having a smooth conical point, was used. The meatus was grasped firmly about the nozzle, thus distending the folds and pockets of the urethra, and the solution retained several minutes. This was at first employed only at night, but after a few days it was used in the morning also. Care was taken to direct the patient to urinate before using the injection. The potassium permanganate (gr. j to oz.x) gave the most satisfactory results.

The treatment of chronic specific urethritis is of more practical moment, and withal one of the most difficult affections of the urinary tract to eradicate, so that the saying so often repeated by Ricord, "*Une*

chaude pisse commence, Dieu le sait quand elle finira," holds true in many cases today.

First it is necessary to locate the disease, *i. e.*, whether in the anterior or posterior urethra. This is done by the breaker glass test, or by the endoscope. Anterior urethritis, when diffused, is best treated by forcible distension as previously described, or with a fountain syringe. When limited to small areas direct application through the endoscope should be made. Of the drugs used the permanganate of potassium, from a thirtieth to a quarter grain to the ounce, has given excellent results. Quite recently the preparation Argonin has been employed. This is a silver-proteid compound formed by combination of casein of milk and silver, producing a whitish powder soluable in water, but not precipitated by sodium chloride or albuminous fluids. My experience with this new preparation augurs well for its further continuance, although as yet sufficient data have not been collected to speak authoratively on the subject.

In posterior urethritis the main difficulty has been in making direct applications beyond the *constricter urethra* muscle. This has been most satisfactorily accomplished by means of the fountain syringe, which is allowed to exert pressure on the constrictor muscle until it relaxes, thus allowing the fluid to pass into the posterior urethra and bladder. From one-half to one grain of the potassium permanganate to the pint of warm water (100 deg. Fah.) may be used once daily.

Radical Treatment of Prostatic Hypertrophy.

Bruns (Clinic) from a careful study of available clinical records, draws the following conclusions on the present position of castration as a method of treating hypertrophy of the prostate: The results of this operative treatment agree with those of experimental research in showing that there is a close physiological conection between the prostate and the tests, and that the development and healthy condition of the former depend on the integrity of the litter organs. In a large proportion—83 per cent.—of 148 cases collected by the author, castration was followed by a decided wasting of the enlarged prostate. This wasting usually begins very soon after the operation, and in the course of a few weeks the organ is reduced to almost its normal volume. In the soft and succulent forms of prostatie enlargement the prognosis of castration is more favourable than in cases in which the prostate is tough and firm. There can be no doubt that castration is followed not only by reduced vascularity of the enlarged prostate, but also by shrinking and fibroid degeneration of the glandular tissue. As the vascular supply of the prostate is independent of that of the tests, this atrophic change can only be attributed to a nervous influence. Although after castration the restoration of the functions of the bladder is less certain than atrophy of the bladder, the surgeon may fairly anticipate that the operation will result in decided relief in a large proportion of cases, and in complete cure in a few. Bruns arranges the successful cases in three groups. In the first, which comprises cases of dysuria without retention, the operation usually results in cessation of he frequent and urgent desire to pass urine, and in diminished frequency of micturition. Even after long-continued dribbling the urine may at the

patient's will be discharged in a full stream. Prostatic subjects suffering from retention, who for some few weeks only before the operation have been compelled to use the catheter, are, as a rule, enabled to dispense with this instrument, and to pass urine spontaneously. Those who have suffered from chronic retention, which has necessitated for many months or even years, the habitual use of the catheter, may be released, after castration, from the necessity of thus emptying the bladder. In about a third of such cases such improvement follows the operation that the catheter can be used less and less frequently and with greater ease. In most cases which have been treated by operation there is, if not complete cessation, considerable alleviation of the symptoms of vesical catarrh. Double castration, though an easy operation, and in itself free from any immediate danger, is open to a serious objection even in patients of advanced age. Cases have been recorded in which it has been followed by nervous depression and mental apathy. For this reason the author thinks that a fair and extended trial should be made of simple resections of the vas deferens. The results of this operation have hitherto been encouraging, but further experience, he thinks, is required before any conclusive estimate can be formed as to its efficiency. At present the most certain method of treating prostatic hypertrophy, especially in the earlier stages of the disease, is double castration.

A Clinical Study of Injection of Iodoform-Glycerine in Tuberculous Osteomyelitis.

By HARRY M. SHERMAN, A. M., M. D., Orthopedic Surgeon to the Children's Hospital, San Francisco, California, and Agnes Walker, M. D., late Interne, Children's Hospital.

The treatment was begun and carried out to satisfy the mind of the writer who thought the statements made by some surgeons to be beyond the facts. In all 20 cases were treated and 164 injections of 10 per cent. of iodoform suspended in 90 per cent. glycerine were given, the amount of each injection ranging from 20 minims to 4 drachms. Of these 81 were intra or peri-articular injections, 81 were intra osseous injections and 2 were into the evacuated cavities of tuberculous abscesses. The greatest number of injections given any one case was 21, and the largest amount of iodoform one case received was 196 grains. Reaction followed the injections many times, but not always, the highest reaction-temperature being 104°. There was never iodoform poisoning, nor suppuration as the result of the treatment. During the treatment 7 cases improved, 3 remained unchanged, and 10 got worse, 5 of these last developing tuberculous absces and 7 coming to operation. In the review of the cases that improved they did not differ materially, either in point of time treatment by apparatus was necessary, nor in the final results, from casses treated by classical protective methods. The cases that got worse did so on ordinary lines, except 2 which were apparently made worse by the treatment. The specimens of tuberculous bone removed from the operation cases showed no attempt at repair as the effect of the iodoform. The opinion is expressed that iodoform has very feeble, if any, germicidal effect on the bacillus of tuberculosis, and that, while intra-osseous injections are usually practically harmless, still they may cause extension of

the lesion, in small foci, by sweeping the tuberculous tissue before the flow of the iodoform glycerine into healthy areas, that in larger areas this danger does not exist, but that there has been, in these cases, no satisfactory therapeutic result.

Hydrotherapy in Pulmonary Phthisis.

Winternitz (Clinical Journal) mentions that phthisical patients may obtain much benefit from hydrotherapeutical measures, other treatment not being neglected. After referring to the curability of phthisis, the author speaks of the value of hydrotherapy in the prevention of this disease. Much attention should be paid to the onset of pulmonary phthisis which is practically always gradual. Hydrotherapeutic treatment may so increase the strength of the patient as greatly to enable him to resist the disease. In well developed florid phthisis with hectic the good results of this treatment are often striking. The author says that in his experience desperate cases have derived much benefit as regards their symptoms. In less severe cases the fever may disappear, the body weight increase, the cough lessen, and even the physical signs become less marked. Aberg's method of hydrotherapy is the best. This writer distinguishes three grades in the water treatment: (1) Bathing the neck, back, face, and chest at first rapidly with a sponge squeezed out, and subsequent rubbing of these parts until dry. Later this may be done morning and evening. Reaction is obtained in the open air or in bed. (2) Pouring water over the head, neck, back, face, and chest, with subsequent drying. (3) Using the full bath, which only lasts a moment. Aberg recommends water at 0° C. for the washing and douching, and from 17° to 18° C. for the full bath. Winternitz prefers water at rather a higher temperature. Instead of Aberg's douche, in the second grade, the author employs friction with water at 7° or 8°, and he uses a cold shower instead of the full bath. This apparently heroic treatment is well borne and liked by the patient.

Use of Forceps.

Thompson (Edenburgh Medical Journal) says: On an average I use either long or short forceps once in every five cases. With a well dilated os, it is folly to wait for hours upon Nature to complete what can be brought to a close in as many minutes.

Remembering that the present-day woman has muscles but poorly developed, and that therefore the voluntary forces are feeble at the best, it has always appeared to me to be bad treatment to wait until the patient is worn out with pain and anxiety, when a little chloroform—wonderfully safe in such circumstances—and a very slight traction will give almost instantaneous relief. By early and judicious application of forceps much danger is averted to both mother and child. A prolonged labour is always more or less dangerous to the child, and is fruitful of trouble to the mother.

To apply forceps is not always an easy matter, and no force should be used, and if after introducing the blades the handles do not lock easily, it is wiser to withdraw the blades and reapply them than to force the handles together. I use the axis-traction for most cases, but if the head

is well down the short instruments are more convenient and more readily applied.

Syphilitic Antitoxin.

The possibility of treating syphilis in the first stages by the injection of serum taken from persons in the secondary and third stages, has recently been discussed by Cottroll. He maintains that the primary lesion, enlarged glands and early skin eruption, succumb to this treatment more rapidly than when the ordinary mercurial treatment is persevered with; he recommends the injection of ½—5 cubic centimetres of serum taken from persons in the secondary stage, and he regards military hospitals as most likely to afford fruitful fields of research, owing to the number of such cases in these institutions, and the possibility of organised control. Gilbert and Fournier in the early part of the past year gave it as their opinion, in view of our present indefinite knowledge of the subject, that this line of treatment could be safely adopted in most cases. Other observers, namely, Tommasoti, Mazza, Hericourt, and Triboulet, employed a somewhat modified method. They injected their parients with serum from animals, which presumably were additionally immune by reason of a previous course of inoculation with serum from syphilitic subjects. Favourable results were occassionally met with, but complete failure as often followed. Hericourt and Richet have placed on record a few successful cases; one was that of a young woman who had contracted the disorder about three years previously. At the commencement of the serum treatment she possessed an intractable ulcer of the leg. In the course of six days twelve cubic centimetres were injected, and at the end of that period she was suffering from giddiness, headache, pyrexia, and albuminuria. Consequently the injections were suspended with subsidence of the symptoms. The ulcer then rapidly improved, and in one month was completely cured. Hericourt has also got good results in nervous disorders of syphilitic origin, and makes the suggestion that sero-therapy might prove of considerable benefit in cases of tabes of a specific nature. Another case is recorded by the same author, in which broken down gummata readily responded to this treatment after an ineffectual course of mercuric treatment.

Dysentery.

Dysentery is a microbic malady, since it is contagious, and intestinal antisepsis should be employed to diminish its gravity. Whilst we have no specific remedy, ipecac—given in decoction according to the Brazilian method—is perhaps the most powerful remedy that we can employ against the disease. The first tentative trials of lavage with boric acid solutions have been successful enough to permit us to recommend the use of Orphol suspended in boiled water, 10 gms. to 5 litres (2½ drachms to 5 quarts). Its internal administration will be no less valuable from its disinfectant effect on the ulcerations of the intestinal walls. It may also be employed for the dysenteries peculiar to hot climates; the treatment must be long continued to obtain a perfect cure and to avoid the formation of an abscess of the liver.

Measures to Prevent Physicians from Contracting Contagious Diseases.

At the annual meeting on June 3d, 1896, of the Wisconsin State Medical Society, Dr. J. J. Howard, of Columbus, Wisconsin, read a paper entitled, Measures to Prevent Physicians from Contracting Contagious Diseases Entering by the Air Passages.

He first called the attention of the Society to the great number of physicians who were annually falling victims to contagious diseases which enter by the air passages.

He called attention to the fact of the degree of resistance to the successful entrance of specific diseases in all healthy human beings. That this resistance was at least of two kinds. 1st. The resistance of an unbroken surface. 2d. The resistance of the normal tissues and fluids of the body, including the distructive power of the blood serum on the microscopic causes of diseases.

He maintained that atmospheric temperature, and other conditions of the atmosphere, have to a great extent a controlling influence over the entrance of most of the specific diseases. That, as a rule, all inflammatory diseases of the throat, air passages, and lungs, are increased by exposure to a cold atmosphere. That the same is true of all specific diseases which enter the body by way of the air passages or lungs.

That diphtheria is most prevalent during the autumn and winter months, and that this indicates that exposure to the inhalations of a cold atmosphere increases the danger of contracting diphtheria. Among the numerous prophylactic measures, attention was called to keeping the secretions of the mouth and throat healthy by the free use of chlorate of potassium gargles and tablets. If suffering from nasal catarrh, a mild astringent disinfectant douche or spray should be used several times daily.

Attention was called to disinfection of all sputa of consumptive patients; that the patients should be provided with cuspidors that could be burned. For the prevention of pulmonary tuberculosis, disinfection and destruction of all infected sputa, avoiding the inhalation of the dust from rooms that were, or had been, occupied by consumptive persons. The physician should pay especial attention to the ventillation of the rooms of his consumptive patients; that the air should be taken in near the top of the room, and find its exit near the floor surface. That the infection of tuberculosis was apt to follow pneumonia, and acute affections of the throat and upper air passages.

For the prevention of typhoid fever, avoid inhaling the emanations from the dejecta, which should be thoroughly disinfected. The hands of the physician should be washed with soap and water, and dipped in a 1-2000 solution of bichloride of mercury. It is manifestly the duty of the physician to protect himself, to say nothing of others, from infection, and the instinct of self-preservation is so strong that it would seem unnecessary to inculcate it. The self-satisfaction of ignorance is, however, equally strong, especially when it relates to matters of hygiene, and therefore improvement in the prevention of infectious diseases can only be reached when hygiene is taught thoroughly in our schools and colleges, and recognized as the most beneficent of the sciences.

Experimental Reports with Gude's Peptomangan.

By J. S. Perekhan, M. D., Attending Gynecologist Lakeside Hospital Chicago.

The numerous clinical reports published about the favorable results obtained with the use of Gude's peptomangan in anemia, chlorosis and all cases where there is diminution of the red blood cells, and amount of hemoglobin, induced me to institute a course of investigations in order to determine the effect produced upon the blood. Thoma-Zeiss hemocytometer and Gower's hemoglobinometer were used for counting the blood cells and estimating the amount of hemoglobin.

The following reports are from a series of cases experimented upon:

Case 1. D. B., aged twenty-eight, married, of a consumptive family, normal weight 130 pounds. About January, 1895, had a three months' miscarriage, followed by menorrhagia and metrorrhagia for a period of over five months, when the uterus was curetted. Her general condition, however, did not seem to improve; gradually she became anemic, lost flesh, had some cough and expectoration, which on repeated examination failed to contain any bacilli. She also had occasional night sweats, headaches and constipation.

January 28, 1896. Patient's blood was examined with the following results: Red blood corpuscles, 2,610,000 to the c. m., hemoglobin, 40 per cent. She was placed on Gude's peptomangan drachm j. after meals and gradually increased to drachm ij. t. i. d., results:

February 18. Corpuscles, 2,900,000; hemmoglobin, 46 per cent.

March 10. Corpuscles, 3,310,000; hemoglobin, 67 per cent.

April 1. Corpuscles, 4,200,000; hemoglobin, 88 per cent.

The general condition of the patient after sixty-three days of treatment has entirely changed. No cough, night sweats or headaches; appetite good, sleep and menstruation normal. She is more than pleased with the treatment and considers herself cured.

Case 2. W. H., aged nineteen, of a good family history. About a year ago began to lose flesh, shortly after swelling and tenderness of the dorsum of both feet, and the lower end of the left tibia was noticed. A diagnosis of tubercular osteritis being made, patient was placed on tonics and ordered to rest the parts by keeping off his feet. He did not improve, however, but on the contrary abscesses formed and the necrosed bones had to be removed. On leaving the hospital his general condition was very poor; had lost considerable flesh, appetite poor, face and lips exceedingly pale, few enlarged lymphatic glands were to be felt in the neck. On examination his blood at that time, January 20, 1896, contained corpuscles, 2,700,000to the c. m., while the amount of hemoglobin was only 47 per cent. Patient was given Gude's peptomangan drachm j. t. i. d. with one drop of beachwood creosote to the dose. The latter had to be discontinued for a few days on two occasions on account of disturbed digestion. The improvement in this case was rapid and very decided. Complexion shows marked change for the better, he has lost his pallor and regained a healthy color, gained flesh and strength, the enlarged lyphatic glands have diminished in size. Examination of blood was:

February 15. Corpuscles, 3,510,000; hemoglobin, 64 per cent.

March 6. Corpuscles, 4,000,000; hemoglobin, 80 per cent.

Patient decided on a sea voyage and he was advised to continue the treatment for a month longer.

Case 3. Miss M., aged twenty-one. Normal weight, 109 pounds. Menstruated at sixteen and was always regular up till January, 1895, when she contracted a bad cold, to which she attributes the beginning of her present sickness. From January to May her menstruation was irregular and it has been absent for the last eleven months. She was treated in the south for consumption for nearly a year without any improvement

Patient came to this city to visit her sister, and I was consulted. Her condition at that time was as follows: Face and mucous membranes very pale, slender, slightly below the average height, pulse weak, of 120 beats per minute, temperature 101°. Appetite poor, sweats nights, bowels irregular, complains of dyspnea on the slightest exertion. Cough severe, expectoration muco-purulent. Physical examination showed consolidation of the upper lobe of left lung, and evidences of diseases in apex of right lung. Heart normal, with the exception of anemic murmur heard over the pericardial region. Urine normal of light ap. gr. Sputum contained large number of bacilli.

She was given peptomangan drachm j. doses after meals, with one drop of creosote. Number of corpuscles to the c. m. when treatment began was 2,815,000. Hemoglobin was down to nearly 45 per cent.

After continuing the same treatment for twenty-five days, condition of the patient has improved exceedingly. She has gained three and one-half pounds in weight, appetite unusually good, night sweats have entirely ceased and the cough and amount of expectoration is much less. Blood count: corpuscles have increased to 3,600,000, hemoglobin 60 per cent. Sputum, however, still contain baccilli, and the patient at the present time is undergoing additional treatment for the tuberculosis.

To Dr. E. J. Doering I am indebted for the report of the following case:

Case 4. Miss H. K., age twenty-one, public school teacher, very anemic in appearance, anemic heart murmur, lips pale, body hard, well nourished. Blood showed February 1, '96, hemoglobin 65 per cent. and 2,900,000 corpuscles to the c. m. March 29, '96, hemoglobin had increased to 90 per cent. and corpuscles to 4,200,000 to the c. m. No other remedy administered except Gude's peptomangan and a milk egg and beef juice diet.

Dr. H. D. Peterson reports the following case:

Miss Clara C., aged twenty two, single, first menstruated at sixteen, has been ill for two years; has varied symptoms, prominent among which are pale face and mucous membranes, loss of appetite, general debility, loss of flesh, now weighs about 100 pounds, normal weight 120 to 130.

Blood count when she come under observation was corpuscles 3,100,000 to the c. m., and after twenty days treatment with Gude's peptomangan the corpuscles had increased to 3,680,000 c. m.

Other cases with similar favorable results could be reported, but suffice it to say that in Gude's peptomangan we have a valuable and trustworthy general tonic and reconstructive article, and it is well deserving of a more extended trial at the hands of the practitioner.—*From the Chicago Medical Recorder. May 1896.*

2,406 Pririe Avenue.

Cycling for Women.

Dr. Penton says: "Let it at once be said, an organically sound woman can cycle with as much impunity as a man. Thank Heaven, we know now that this is not one more of the sexual problems of the day. Sex has nothing to do with it beyond the adaptation of machine to dress and dress to machine. With cycles as now perfected there is nothing in the anatomy or the physiology of a woman to prevent their being fully and freely enjoyed within the limits defined by common sense.

"The muscles upon which the most demand is made are those of the lower extremity. In the majority of women these muscles are speedily developed by cycling. The *lower extremity* of the human female has great latent possibilities, but time must be allowed and opportunity for practice given. Among other muscles, too, which have to be called in requisistion are the erectors of the spine. On the proper use of these especially depend the appearance of the cyclist; the 'scorcher' did not bring them into play, but relaxed the lot. He has not lived in vain if he has made every woman cyclist determine she would never make such an object of herself.

"The large abdominal muscles do but little in riding downhill or on level ground; but in hill-climbing great strain is thrown upon them. There are many reasons why women should not overtax this group. Probably the idea that these muscles might be greatly overstrained in cycling has had much to do with checking the enthusiasm of the medical profession in advocating this exercise for women. This objection is at once silenced by refraining from pounding up steep inclines.

"As to the organs affected by cycling, to begin with, the heart has to take its full share. Travelling on the flat and downhill it will have to do a little extra work, which, if reasonably graduated, will do good to its muscular substance; its frequency and power of contraction will be slightly increased. So much the better for the heart and for the body generally. An unsound heart may be much embarrassed. This will be much exaggerated on struggling with a head wind or in mounting uphill. Bad valvular mischief should be regarded as an absolute bar to cycling. Mere weakness of the muscular fibre, on the other hand, will be distinctly benefited by common-sense riding. Improved action of the heart means better circulation of the blood through the limbs, lungs, brain, liver; &c., and gives that general sensation of improved health summed up in the word 'fit.' Muscular action in every limb helps the return flow of blood through the veins to the heart.

"Women are very subject to varicose veins in the legs. Cycling often rids them of this trouble. A girl who has had to strnd for hours and hours serving behind a counter gets relief untold from an evening spin on her 'bike.' Her circulation has been improved, and the aches and pains which would have shortly made an old woman of her have gone, and a sense of exhilaration and relief have taken their place.

"Lungs perform their function of oxygenation of the blood well or badly as they are used wisely or not. The blood mugt be pumped efficiently through them by a strong heart with sufficient frequency; inspiration and expiration must also take place with appropriate rhythm to keep the body in perfect health. Motion with but slight exertion through fresh air promotes this enormously. There are no greater enemies to

tubercle and its hateful bacilli than fresh air, exercise, and light. Anæmia will disappear under the same conditions.

"The diseases of women take a front place in our social life; but if looked into, ninety per cent. of them are functional ailments begotten of *ennui* and lack of opportunity of some means of working off their superfluous muscular, nervous, and organic energy. The effect of cycling within the physical capacity of a woman acts like a charm for gout, rheumatism, and indigestion. Sleeplessness, so-called 'nerves,' and all those petty miseries for which the 'liver' is so often made the scapegoat, disappear in the most extraordinary way with the fresh air inhaled, and with the tissue destruction and reconstruction effected by exercise and exhilaration."

Disinfection of Sputa.

Abstract of a paper by E. F. Woods, M. D., of Janesville, Wis., read at the recent meeting of the Wisconsin Medical Society.

In the report of the Commission appointed by the Congress of Tuberculosis, read before the Academy of Medicine at Paris, July, 1889, we find the following:

"Of all the agents of transmission of tuberculosis, the sputa is the most formidable. There is danger to the public in discharging the sputa upon the earth, carpets, hangings, curtains, napkins, handkerchiefs, clothes and coverings. Not dangerous while moist, it becomes when dried, the chief means of the spread of the disease."

How can we prevent this? One of the Eastern States has tried to solve the question by legislative means, prohibiting all spitting upon the floor of public conveyances and places of resort.

This is a move in the right direction, but one difficult to carry out. Besides, it only touches part of the question. Spitting upon the earth, etc., remains.

The one thing we can do, as physicians, is to use all our influence and authority over tuberculous patients.

Sick people are selfish and care little for the welfare of others. But we may use as a potent argument the danger of self inoculation. An individual well on the road to recovery, unless he takes care of the sputa, greatly diminishes his chances for recovery.

We must persuade him, when at home, to use a cuspidor in which it is well to keep a solution of bichloride; this should be emptied daily into the fire, and then well washed out with boiling water.

In these days of steam heat, gas stoves, etc., this often becomes difficult, and if obliged to empty into sewers be sure a solution of bichloride is always used.

Never empty upon dust-heaps, into the garden or latrines where it may become a source of infection to animals as well as man.

When away from home, he should carry a small spit cup containing a slip of absorbent cotton or gauze wet with bichloride solution to be emptied as often as possible.

Warn him, and also his relatives and friends especially of the danger of spitting into handkerchiefs.

Sometimes, when the patient has reached the latter stage of the disease and is confined to bed, the exertion of moving to spit into cuspidora,

etc., causes pain or severe attacks of coughing. In such cases, I have found it very convenient to keep a pad of toilet paper at hand and allow the patient to spit into pieces of this, dropping them afterwards into the cuspidor containing the bichloride solution.

Legislation cannot accomplish what we wish; the influence or authority of the physician often is of no avail, and we may eventually be obliged to quarantine—reporting cases of tuberculosis as we do of diphtheria.

This would be unnecessary if we could only arouse the general public to a sense of its danger and have its assistance and influence to aid the physician.

Tobacco from an Æsthetic and Hygienic Point of View.

Dr. Henry M. Ochiltree, member of the Kansas State Board of Health, read a paper with the above title before the Kansas State Medical Society.

Tobacco was characterized as producing smoke, odor, spit, filthiness and disease. A quintette of evils arising from no other known single cause. His remarks on the æsthetic feature of this subject closed by saying: "There can be no more glaring disregard of decency than that exhibited by expectoration upon the floors in buildings and vehicles used by the public; a disgusting habit, unsanitary, and in direct violation of the laws of cleanliness and health now advocated by all physicians.

The effects upon the human organism were then discussed, showing its pernicious effects in youth, and that no part of the cutaneous, muscular, or nervous system escapes this withering curse.

The fallacious theory that it possessed germicidal properties was illustrated by instances of disease contracted where tobacco was constantly used, and that tubercle bacilli wrapped in tobacco leaves retain their virulence up to the tenth day.

As a means for prevention of the tobacco habit it was recommended, (1). That no teacher should be granted a certificate who used tobacco. (2). Medical Societies should condemn its use by resolution, and all colleges should require students while under their control to abstain from its use. (3). Legislation prohibiting its use by minors. (4). Making it a misdemeanor to smoke, or spit tobacco juice in public places.

Summer Diarrhœa.

In the large class of summer diarrhœas of children and adults, with griping in the bowels and flatulence, the use of listerine, in doses varying from ten drops to a teaspoonful (with or without water), has a most salutary and pleasing effect.

It can be administered at short intervals after eating, as soon as regurgitation, distension or acidity occurs. Its action in arresting excessive fermentation is prompt; besides, it exercises a decided sedative influence on the mucous membranes of the stomach.

The Thymol, Menthol and Boracic Acid which, with the quota of alcohol necessary to their proper admixture, form the principal elements of listerine, lend to this compound a special value in this class of cases.—*New York Medical Journal.*

Transmission of Tuberculosis.

Synopsis of a paper read before the Wisconsin Medical Association, at Madison, Wis., June 4th, 1896, by F. R. Yarlock, M. D., of Racine, Wisconsin.

If Tuberculosis is hereditary, then the ultimate germ, or bacillus, must pass directly from the parent to the system of the unborn child, and after a period of germination or development result in the full development of the disease. If the child possessed great vigor of constitution he might be able to resist the suttle influences for some time, but ultimately he must die of tuberculosis in some of its varied forms. This has been the theory as advanced by the older pathologists, and the theory of heredity has been based upon that which is no doubt false.

I have heard that an eminent German physician and pathologist has traced the bacillus tuberculosis in a case of a tuberculous mother to the placental substance, but no further. I have not yet learned that the tuberculous bacillus has been traced to or discovered in the circulation or substance of the new born infant. If this be so then the older pathology of this multivarious disease has been misunderstood and all the treatments which have been so long in use has been in vain and false. If the older pathologists were correct, the modern theory of a germ, called the tubercular bacillus, is also false, and the modern teachings in our colleges is incorrect.

There is no doubt but that a child born of tuberculous parentage does inherit the tuberculous diathesis. but not the elements of the disease. The bacilli do not exist in the substance of the infant, nor does it originate *de novo* in his system unless he "*catches it*," or it gains an entrance into his system from without. If one resides in a house in which the disease has been an occupant, or in a room illy ventilated, and the air inhaled is impure, as we find in any illy ventilated house, or one where several individuals are living compactly together, then any person may get the disease, and more easily if one has inherited the tuberculous diathesis from ancestors. The germ must come from without, and is not carried all one's life from parents undeveloped. If my father should accidentally fall from a roof and kill himself, does it necessarily hold true that I must also die of the same cause? I claim that tuberculosis cannot necessarily be taken unless the individual lives under the proper conditions to inhale the germs, or take it or them in, in food or drink. They must get into the system from without, just the same as measles, scarlet fever or small pox would get into the system, and I am a firm believer in the disease being infectious and ought to be quarantined against as other infectious diseases are now controlled.

The theories which I have now advanced may seem strange to those who have never studied the matter thoroughly, but they may suggest a train of thought which may be well to investigate. If the germ theory be correct, then the disease is not hereditary. If the disease be hereditary, then our antiseptic treatment is all wrong, and more investigation alone can discover a remedy.

To do justice to this great subject is not within the limits of a ten minutes article like the present. Hoping that the subject will be more fully investigated, I will leave the matter to others who are more capable and have greater facilities for its investigation.

Surgical and Mechanical Treatment for the Relief of So-called Hopeless Cripples.

Dr. Willard (Pennsylvania State Medical Society) called attention to the large numbers of so-called hopeless individuals crippled from paralytic conditions, or from inflammatory disease, who are so frequently neglected and are permitted to spend limited and comparatively useless lives shut out from all the advantages of the world.

Many of this class by the proper application of surgical and mechanical measures can be made to walk comfortably, and under the benefits of exercise they can become self-supporting members of society. These results are possible both in infantile paralytic and cerebro-spastic cases.

The various contractures occurring at the hip, knee and ankle, place the limb in a position unsuitable for locomotion, and often make progression impossible; but by surgical measures these deformities can usually be relieved and the limb be brought into proper weight-bearing position; after which mechanical support should be employed to assist the weakened muscles.

All contracted tissues, whether tendinous, muscular or fascial, should be divided either subcutaneously or by the open incision. Bony deformities should be corrected by osteotomy or by excision.

Under locomotion the muscles will develop and artificial support will gradually be dispensed with.

When the upper extremities are strong enough to permit the use of crutches or canes no case need be regarded as hopeless.

Dr. Willard exhibited photographs of numerous cases that had been doomed to spend their lives upon the floor; yet who are now able to walk for miles.

Roentgen's Skiagraphs of Club Feet; Deformity of the Hand; Tuberculosis of the Knee, etc.

Dr. Willard (American Orthopædic Association) presented skiagraphs of a pair of club feet of a boy six years of age. The skiagraph was taken to especially delineate the width of the astragalus and to decide whether it could be replaced between the malleoli without tarsectomy.

The results give a clear outline of the deformity, and demonstrated that replacement was possible, and subcutaneous sections of all the contracted tissues proved the correctness of the diagnosis.

The radiograph shows most beautifully the cause of the internal obliquity of the metatarsals and their relation to the tarsus in a case where the foot has been walked upon for years. The second, third and fourth metatarsals were actually dislocated inward, so that they over lapped to nearly half of their diameter. They were widely separated from the first metacarpus, which had become partially dislocated toward the inner side of the foot, its relation to the cuneiform greatly altered.

This condition shows plainly the serious obstacles to be overcome in the correction of this difficulty in old cases of varus, and it confirms the necessity for early treatment. These cases should never be allowed to walk except upon the sole of the feet. The epiphyses of the bones of the leg and foot are most beautifully delineated.

Appendicitis.

According to H. W. Jones, it is only in the last few years that any satisfactory explanation of the pathology of appendicitis has been given. Even so lucid a writer as Talamano, whose book appeared in 1892, and whose views harmonised with those generally accepted at the time, offered as a solution of questions at issue theories which were not only incompatible with the limitations of anatomical possibility, but which did not acquire even the semblance of probability from any of the observations he recorded. His suggestion of "boulets fecals," manufactured by the churning which he supposed to take place in the cæcum and passed thence into the appendix, must be now held to be a quite untenable hypothesis; and there is no doubt that he also overlooked many of the anatomical considerations essential to a right understanding of the pathology of this condition.

It is not proposed to discuss the anatomy of the appendix in detail, but some few points are of such importance that they cannot be omitted. On transverse section it is found to be composed of the same structures as the cæcum, but with an excess of lymphoid tissue in the submucous coat, in some cases amounting to half the entire mass. It may be said to be composed of two tubes, a soft, distensible inner tube composed of mucosa and lymphoid tissue, and an outer inelastic tube composed of muscle and peritoneum.

It is supplied in most cases by a solitary terminal branch of the ileo-colic artery, but in some women receives a collateral supply by way of the appendiculo-ovarian ligament. The nerves are from the superior mesenteric plexus, and the veins lead to the superior mesenteric vein.

The position of the appendix in the abdominal cavity is subject to wide variations, and as it is so freely movable probably no importance should be attached to its relative position as such; it is only when it passes into some position where it may become strangulated or injured that this becomes of much moment. Its point of origin from the cæcum is in at least 90 per cent. of the cases of the postero-internal aspect of the cæcum just below the ileum, where it joins the large gut. This fact enables surgeons to find the appendix much more easily that any other.

The only other anatomical facts of importance are its relation to peritoneum and the existence of the pericæcal and retro- cæcal fossæ. The appendix is completely surrounded by peritoneum, and is attached to the ileum by a mesappendix. The fossæ named are formed by the junction of the ileum with the large intestine, and by the relation of the cæcum to the peritoneum lining the posterior abdominal wall, so that they are all lined by peritoneum. The pericæcal ones, the ileo-cæcal, and the ileo colic are so small that it is almost impossible for a hernia of the appendix to take place into them. The rectro-cæcal, on the other hand, is often found to contain the appendix, and this may lead to serious strangulation.

The contents of the appendix, as a rule, consist of mucus, with possibly a small amount of fæcal matter. If it be normally situated it can easily empty itself into the cæcum, though the facts that the orifice is extremely small, that its junction with the cæcum is oblique, and that experimentally it has been found difficult to make even water enter it from the cæcum, would seem to prove the improbability of the entrance of

foreign bodies or even fæces, in anything but minute quantity, from the cæcum into the appendix. It is well known, however, that the appendix does often contain concretions which resemble rounded lumps of solid fæces, and it was to these that Talamano applied the term "boulets fæcals," supposing that they were lumps of fæces that had been forced into the appendix. Now, apart from the difficulty of entrance that such solid bodies would encounter, and the facts that in the present day it is almost unknown to find foreign bodies, such as cherry stones, pins, &c.—which were supposed to be the common exciting causes of appendicitis—it has been definitely proved that the great majority of these fæcal concretions consist of inspissated mucus and salts, and are only coloured by fæcal matter. In some cases it is true they contain a large proportion of fat, but this is probably due to the breaking down of leucocytes. It is found also at times that they have as a core a small lump of fæces or even a foreign body. Berry found that a pultaceous mass was produced in the appendix as the result of ligature, and Hermann, by resecting a portion of gut, washing out the lumen, and then suturing the ends, found that a similar mass was produced as the result of intestinal secretion alone. There can be little doubt then that these fæcal concretions, or appendicular calculi, are formed in the appendix.

The mucus in the appendix naturally contains numerous micro-organisms, and it is in the action of some variety of these that the real exciting cause of appendicitis is to be found. Streptococci, the bacterium coli commune, the tubercle or typhoid baccillus and the fungus of actinomycosis have all been found in appendicular abscesses. Of these the two first are infinitely the commonest, either separately or in combination, and it is interesting to note in this connection that observers have found that the temperature of patients suffering from appendicitis bears a direct relation to the number and activity of the streptococci present, and that where the inflammation is due entirely to the bacillus coli commune—the temperature is often normal, no matter how widespread the mischief. It is to the products of growth of the colon bacillus that the disgusting odour of appendicular abscesses is due.

It seems probable that future research will prove that tubercle is more commonly a cause of this disease than has been hitherto supposed. The well-known tendency of tubercle to affect lymphoid tissues supports this; there are also several cases on record where the tubercle bacillus was actually found in infected appendices. It has likewise been found in the appendix of a tubercular rabbit.

Typhoid appendicitis is extremely rare, and there is only one recorded instance of actino-mycotic appendicitis.

Sanitatsrath Dr. Reichert, specialist for diseases of the nose, throat and ears, at Berlin, has demonstrated the therapeutic value of Eucaine in diseases of the throat and naso-pharynx. He has shown that not only does it cause *marked local anæsthesia, but that it is absolutely harmless in medicinal doses.* Of especial importance is the fact that he found that *it does not affect the heart*, which has often been found to be the case with cocaine, more especially in neurotic and weakly individuals. In diseases of the nasal mucosæ Dr. Reichert found that Eucaine alone, without any other application, sufficed to effect a cure in many cases.

Malaria Not an Accidental But an Optional Parasitism.

The plasmodium certainly is not driven to enter man for the first of these reasons, namely, because man is in any way necessary for it existence as a species. We know that malaria abounds where man is rarely or never seen—in tropical wildernesses; this could not be the case were man necessary for its development and multiplication. So far from man being necessary for the evolution of this parasite, if anything his presence is inimical to it; in towns and other places, where men most do congregate, malaria is infinitely rarer than in the open country, where man is a comparatively insignificant feature. Malaria is acquired from places, not from people; as Blanchard puts its, the plasmodium pre exists man. The malaria parasite must, therefore, enter man either accidentally or, it may be, optionally, making use of him as an alternative host.

One of the characteristics of accidental parasitism is its comparative rarity. Malaria does not conform in this respect; for it is well known that in many places every human inhabitant is a host, at some time or another, of the plasmodium. Another frequent characteristic of accidental parasitism, especially animal parasitism, is that the strayed parasite does not multiply. We have seen how the plasmodium not only multiplies in man, but, also, how when circumstances unfavourable to multiplication in the blood arise, provision is made for its remaining latent until circumstances favourable to renewal of activity shall again recur. Surely this device—if I may use the expression—to multiply the chances of maintaining the species is a work of supererogation on Nature's part if it be the case that the plasmodium is present in man merely as an accident, and, as this would imply, that it has to die out without any chance of further extending its species being afforded it. Nature does not work in this way. Moreover, if the plasmodium is present in man as an accident, and for no purpose as regards its own interests, we must conclude from analogy that all the many members of the daily increasing family of hæmocytozoa, which we now know to be represented extensively in the lower animals, are also present in their respective hosts merely as accidents—hopelessly stranded. As Danilewsky and others have pointed out, nearly every individual in certain species of birds lodges a hæmocytozoon very similar to that of man. If man's hæmocytozoon is an accident, why not those others? Nature does not get her species into a corner in this wholesale manner; accidents do happen in Nature, it is true, but not wholesale accident of this description; she does not walk systematically with aimless feet.

If, then, the malaria parasite is present in man neither as a necessary circumstance in its life history, nor as an accident; and if, as is universally admitted, the malaria parasite can increase and multiply and lead a life perfectly independent of man, we are forced to conclude that when it does enter man, it does so as finding in him a suitable alternative host from whom it can escape and extend as a species, that man is only one of the media in which this parasite can exist, and that there is a reciprocity as regards it between him and those other external media.

This seems to be a perfectly legitimate conclusion. The plasmodium is, therefore, a true parasite of man, not merely an accidental parasitic visitor. The individual plasmodium gets into man designedly, not in its own individual interest merely, but also in the interest of the species to

which it belongs. And this being so, we may be quite sure that just as provision is made in its economy for a passage into the human body, so provision is made in its economy for a passage out of the human body. Such a provision is absolutely necessary for all true parasites; otherwise, were this not the case, the extinction of the parasite, not merely as a individual but as a species, would be inevitable on the occurrence of the death of the host. We may not assume that the plasmodium is different from other parasites in this respect; rather, we must assume that it conforms to the general law.

Prostate Retention Treated with the Galvanic Current.

Minervini reports the case of a man, aged 68, who had suffered for three years from dysuria, and for the last six months for hæmaturia and ischuria. The prostate was enlarged and a calculus found in the bladder. On December 24th, 1895, suprapubic cystotomy was performed, and eight small calculi were extracted. The middle lobe of the prostate was distinctly seen to be enlarged. As no improvement occurred in the dysuria the author on January 29th applied a modified Apostoli method, consisting in the introduction of insulated electrodes into the urethra and rectum, and then using currents of 30 m., increasing up to 100 m. Before treatment the patient could not emit a drop of urine spontaneously. After six applications he began to urinate by drops, after ten in a filiform stream; after the twentieth the patient felt so much better that he wished to leave the hospital; after the thirtieth and last he could do without a catheter, and would not continue the treatment. The ischuria disappeared rapidly, and undoubtedly a certain amount of reduction of the prostate occurred. Each application lasted from five to ten minutes. As a rule the negative pole was put in connection with the urethral conductor at first, and the direction of the current changed three or four times in each sitting. A sense of burning and some tenesmus occurred, especially on changing the current.

Epiphysites of Infants.

According to Dr. H. B. Robinson this condition is the earliest manifestation of syphilitic disease of bones and joints, the epiphysis being first involved, and almost immediately being attended by effusion into the neighbouring joint. The disease develops rapidly, and is accompanied by well-marked signs of inflammation. The affected limb seems to lose all power, and for this the child may be brought to your notice—pseudo-paralysis. There is a tendency for the epiphysis to become loosened, but with treatment fixation again takes place in most cases apparently without any subsequent alteration to the length of limb. As a rule the synovial membrane does not suffer much change, the fluid becoming absorbed, leaving the joint undamaged or with trivial adhesions. In exceptional cases suppuration may occur, but if such be the case the possibility must be borne in mind of an additional infective process at work. The prognosis, if treatment be soon adopted, is favourable, especially if a single joint be attacked; if several joints are involved this appears to indicate a greater intensity of the disease, and is accordingly more fatal.

Successful Use of Protonuclein in a Case of Extreme Anæmia.

By John Ferguson, M. A., M. D., Toronto.

The case that forms the subject for this short paper is that of a gentleman aged 54. He is highly educated, and has filled a number of positions of an important educational character. Previously he resided in India for several years. His health has not been good for about two years. During this period he suffered loss of flesh, strength and appetite. In April, 1895, the symptoms became more distressing, when it became necessary for him to give up his work, as private tutor, and rest. He became a patient of mine about the end of September, 1895. At this date he was a pronounced victim to insomnia. His digestion was extremely bad, suffering much pain, and frequent nausea after taking nourishment, either liquid or solid. There was an excessive amount of flatulency. The bowels were very torpid. The pulse was weak, and usually as frequent as 100 per minute. There was always some elevation of temperature, sometimes as high as 102°. Continuous headache was another feature of the case.

The lips and conjunctivæ were almost colorless, and the tongue exceedingly pale. The skin had a pale lemon tint. The red blood corpuscles were only 1,200,000 per cubic millimetre. The urine was normal. No organic disease could be discovered anywhere in the system.

In spite of all efforts at treatment and feeding, he gradually grew worse. I had given his wife a very unfavorable opinion of the case, and advised a consultation.

Dr. J. E. Graham saw the case with me. No other disease could be discovered than that of progressive anæmia. It was agreed at this interview to place him in some hospital for a time. He was admitted into the Toronto Western Hospital on January 7th, 1896. I went with him in the coupe, and really feared he would collapse on the way. When he arrived at the hospital he was in such a state of exhaustion as to be unable to walk up stairs. On being taken into his room he became unconscious, and in this condition he was hurriedly undressed and put to bed with hot bags around him. In the course of an hour or so he gradually regained consciousness.

At this stage of his disease there were varying elevation of temperature and a subnormal condition of same. He had intense headache, and almost continuous insomnia. The bowels were constipated, and nearly everything in the way of nourishment was vomited. The patient was in a state of extreme emaciation and asthenia. There was frequently low delirium and confusion of thought. He often regarded himself as a duality.

On his admission the bowels were washed out daily with a large enema, containing some boracic acid. Daily he was given a sponge bath. The stomach was washed out daily, except occasionally when he felt too weak. He was fed on peptonized milk, egg albumen and beef juice. The headache continued, however, to a most intense degree, and no improvement in the insomnia. For the headache, acetanalid, phenacetin, salol and other agents were employed, and with only the most temporary relief. Opium, chloral, paraldehyde and sulphonal were administered from time to time for the insomnia. On one occasion thirty grains of sulphonal

were given, with the result of obtaining only a few hours' imperfect sleep, followed the day after by much vomiting, great restlessness, extreme headache and feeble pulse.

He had been in the hospital a little over two weeks, and all the ap pearances pointed to an unfavorable termination of the case. He was now placed on Protonuclein (tablets), as prepared by "Carnrick." The enemeta, lavage of the stomach, and same nourishment continued. Tablets were given every three hours. By the third day it became apparent that the patient was improving. The headache was the first symptom to become modified. In a week it had almost wholly disappeared, and at the date of writing is entirely gone.

The sleep soon became better. By the ends of the first week, on the Protonuclein, he would sleep three and four hours at a time. He now sleeps from six to eight hours, and wakes with a rested and refreshed feeling. The appetite is good. He can take eggs, meat, toast, porridge, oysters, beef-juice, bread and butter, milk and light puddings without the slightest discomfort. There is no nausea or vomiting; the bowels are quite regular and no enemata or aperients have been administered for at least ten days. The temperature is constantly normal. The patient is gaining in flesh and can walk about the ward and in the hall for an hour, and experience no ill effects. The lips and nails have a good color, and the tongue has lost its pallor. The abdominal walls, which were extremely retracted, are now filling with adipose tissue.

The most marked change, however, is to be found in the red blood globules. When the Protonuclein was first ordered, there were not quite 1,000,000 to the cubic millimetre. Now there are 3,500,000. This is a remarkable increase when the condition at starting is borne in mind.

The progress of the patient is one of daily improvement. He will leave the hospital in two or three days, when the same line of treatment will be maintained, with the addition of a mild course of massage to assist in the development of the muscles.

It ought to be mentioned that the preparations of arsenic and iron had been fairly tried in this case, and could not be tolerated in any form. During the past three days arsenic has been tentatively prescribed, and so far has caused no disturbance, indicating an improved state of assimilation.

Since the above was written the patient has been out of the hospital for a short time, and the improvement still continues. The sleep and digestion are now good, and the muscles are gaining rapidly in tone and size.—*Canadian Medical Review.*

Apyrexial Typhoid Fever.

Svehla reports a case of typhoid fever without pyrexia, in which the diagnosis was confirmed by the discovery of the bacillus of Eberth in the blood and urine. The patient was a boy, aged 6; his two brothers, aged respectively 10 and 4, were attacked with typhoid fever a few days after his illness began. The patient had been ill for a fortnight (vomiting and diarrhœa) before admission to hospital. He was drowsy and emaciated, and the extremities were cyanotic and cold. The tongue was dry and coated. The motions were liquid, brown, and offensive. The spleen was not enlarged; the urine gave the diazo reaction, and the reaction persisted

for a week longer. The patient then improved, and left the hospital, but subsequently had a relapse. The temperature never exceeded 99.2 while in hospital. Svehla states the cultivations of the bacillus of Eberth in broth give the diazo-reaction, whereas those of bacterium coli commune do not.

Lachrymal Obstruction.

At the Ohio State Medical Society, held at Columbus, May 28th, Dr. W. A. Melick, of Zanesville, Ohio, read an interesting paper on the above subject. He emphasized the fact that in obstruction of the lachrymal canal, the most potent factor in its causation, was a catarrhal conditian in the nasal cavity, extending by continuity to the mucus lining of the lachrymal canal. He insisted that the nasal trouble which he invariably found to exist should receive attention before resorting to surgical methods. He also advises a preliminary course of treatment, which consists in pressure with the finger over the sac, thus forcing the purulent secretions out through the canal, and by placing the patient in a reclining position, so that the inner angle of the eye forms the bottom of a depression to hold the antiseptic solution to be instilled into the sac through the puncture lachrymalis, thus the sac which hitherto was filled with the purulent secretrion, is now filled with antiseptic fluid. This manipulation is to be repeated daily. He reports that many cases are thus permanently cured without harsher methods.

The writer protested in a most vigorous manner against the routine practice of many opthalmic surgeons in slitting the canaliculus and inserting a larger probe into the canal thus crushing the delicate walls of the duct between the metal and the bony wall of the canal.

He insists that no larger probe should be inserted than will pass readily through the duct in its normal condition.

The three points which were especially emphasized were :

1st. Always examine the nasal cavity for the primary cause.

2d. Don't treat the stricture alone, but remove the pathological condition in the nasal cavity.

3d. After paliative treatment has failed, and surgical interference becomes necessary, don't use so large a probe that the delicate walls of the duct are crushed and permanently injured between the metal and bony walls of the canal.

Digestive Disorders of Children.

The value of listerine in those digestive disorders of childhood, which lead to what is commonly called cholera infantum, can scarcely be overrated. A teaspoonful of listerine administered per oris has been known to dissipate the most alarming symptoms, cutting short the attack and apparently saving life. A good way is to begin something like this: Calomel and chlorate of potash each one grain, to be rubbed well together and to be divided into ten powders, one to be given every five minutes until vomiting ceases and the nature of the stools have been changed; then commence and give teaspoonfull doses of listerine every four hours until convalesence.—*Medical Progress.*

Milk in the Treatment of Bright's Disease.

Dr. Sapelier says: Milk is both the food and the remedy *par excellence* for Bright's disease. During the acute or subacute stage of the disease, it should be used exclusive of all other articles of diet. During the entise course of the disease, milk should constitute the chief liquid fluid. We need not here recall the fact that milk is a complete food, neither need attention be called to its chemical composition. It is only necessary to remark that three litres of milk are sufficient to nourish a man completely, even when engaged in light work.

Contrary to those who think that four litres of milk are necessary to support life, and especially contrary to those who instruct patients of this class to take as much milk as possible, even to the extent of five or six litres, we are of the opinion that not only three litres of milk are sufficient, but also that it is not necessary to exceed this quantity. In the majority of cases we may prescribe, at the beginning of treatment, two litres of milk, adding an additional litre when the patient feels the need of it.

Milk may be taken boiled or unboiled, hot or cold, according to the convenience and taste of the patient. Raw milk is generally better digested than boiled milk. Mild should be taken regularly, every two hours, in the proportion of six to ten ounces or more, according to the total quantity in twenty four hours is to be two or three litres.

The dose of milk should be taken slowly, in small swallows, so that the clots formed in the stomach may be as small as possible. For cow's milk, which is generally employed, we may, as required in individual cases, substitute, in whole or in part, the milk of the goat or the ass, also kephir or kumiss. If the taste of milk is very repugnant to the patient, it may be flavoured with orange water or some other agreeable flavour. It is unnecessary to employ for this purpose brandy or other alcoholic liquors.

All the efforts of the physician should be directed to making the patient and his friends understand that milk is the essential basis of the treatment. Without milk there is no prospect of health, and, as we have been obliged to say, sometimes it is "milk or death."

Treatment of Incipient Phthisis.

At the meeting of the South Dakota State Medical Society, June 10th, 1896, Dr. E. L. Brown, of Parkston, read a paper on the Treatment of Incipient Phthisis.

After expressing regret at the poor results obtained by the many new so-called cures for consumption, attention was called to the use of a combination of several of the salts of calcium. A brief review of the pathology of tuberculosis was given, and the claim made that these drugs met the rational indications.

The healing was promoted by aiding the formation of cicatritial tissue, and furnishing the calcium salts for deposit. A report of six cases of undoubted phthisis was made, which were treated by this method. The cases were severe and sinking rapidly. The improvement was prompt in every case, but the treatment was stopped in some cases too soon, and then relapses occurred.

The Doctor claimed that the good results were greatest in *early* cases, and believed that many of these could be restored to permanent health if they would persevere in this treatment until the lesions were given time to heal.

Treatment of Diphtheria.

At a meeting of the Ohio State Medical Society, Dr. J. E. Fackler, of Versailles, Ohio, read a very practical paper on "The Treatment of Diphtheria," in which he called attention to the results of the various methods of treatment now prominently before the profession.

He stated that according to statistics the antitoxin treatment for which so much is now claimed by its friends, has reduced the mortality about fifty per cent., leaving much yet to be desired in the treatment of this disease. Of other methods of treatment the Doctor claimed that those were most successful which consisted of some combination of chlorides, or of chlorides with an acid. Very satisfactory results had been reported from some of these combinations, notably that of Dr. R. A. Patterson, of Aurelion Springs, North Carolina, who used a combination of chlorate of potash, tinct. of iron, and dilute hydrochloric acid, with local applications of phenic acid and pinus canadensis, and had lost no case after its introduction, though the rate of mortality had previously been high.

The Doctor maintained that the efficacy of these combinations is due chiefly to the formation of *free chlorine*, which he claimed to be a germicide, and an antidote to the toxins of this disease. The activity of the remedy, he thought, depended much upon its freshness and freedom from combination, and should be prepared as follows: Take a four-ounce bottle, well rinsed and drained, put into it a drachm of chlorate of potash in coarse powder, drop on this from fifteen to twenty drops of chemically pure hydrochloric acid, heat the bottle gently until it is well filled with the gas. Now add a small quantity of cold water, close the mouth of the bottle and agitate, add water again and agitate, and so on until the bottle is filled. These manipulations should be conducted in the absence of direct sunlight, the bottle well corked and enclosed in a wrapper to exclude the light. No metallic vessels should be used in the administration of this remedy; but for a child of about five years of age pour into a glass about a teaspoonful of the solution, and add sufficient cold water to enable it readily to be taken; give this potion at short intervals in the course of three hours.

The pyrexia, the Doctor said, was easily controlled by fl. ex. veratrum vir. gtt. i, and fl. ex. aconite gtt. ss, every hour. Should there at any time be torpidity of the liver and secretions generally, small doses of triturate of calomel and bi-carb. soda should be given, followed by castor oil and turpentine, during which time the chlorine should be withheld.

The Doctor further stated that the physician should disinfect the apartments by means of the chlorine gas, generated as above, in an open vessel, care being taken that the atmosphere does not become too irritant. Where this treatment had been used, no case under his observation, extending over a period of more than twenty-five years, had proved fatal.

The efficiency of this remedy, he said, is not limited to diphtheria alone, but extends to all cases of a diphtheritic character, necrotic and putrid sore throat, and scarlatinous angina.

Intestinal and Gastro-Intestinal Anastomosis.

Edmund and Ballance before the Royal Medical and Chirurgical Society, May 12, gave an account of observations and experiments on this matter. The object of the experiments, which were made on dogs, was to determine the best method of uniting either bowel to bowel or bowel to stomach. (1) Intestinal Anastomosis: There were three main methods of uniting two pieces of intestine, namely: (*a*) Side-to-side; (*b*) end-to-end; (*c*) end-to-side. Transverse sections of human small and large intestine and also of dogs' intestine were examined microscopically and measured, and it was found that while the intestine of the dog was more muscular than that of man, the all important submucous tissue was of about equal thickness in the small intestines of man and dog, and somewhat thicker in the large intestine of man. (*a*) Lateral Anastomosis: Various methods were tried, namely: Senn's plates, Davis's plates, Littlewood's plates, Mayo Robson's bobbin, Murphy's button, and Halsted's method of suturing. In the case of Senn's plates, Mayo Robson's bobbin, and Halsted's operations the animals did well; with Davis's plates and Littlewood's plates the experiments were not carried to completion. With Murphy's button the dog died from leakage, because the button, which had been specially made for use in dogs from actual measurement, was very slightly too large for the dog in question; this, therefore, did not tell much against the button, but it indicated a difficulty that might arise in operations on man. (*b*) End-to-end Junction; Of these methods there were tried: Paul's tube, Jessett's tubes, and pure suturing both with Czerny-Lembert sutures and by Maunsell's method. The five cases done by the Czerny-Lembert sutures and by Maunsell's operation were all successful. By the former method a circular ridge was formed round the interior of the bowel, which acted as a diaphragm and contracted the lumen. This circular ridge was absent after Maunsell's operation, but a longitudinal ridge was present at the site of the longitudinal incision; it did no harm, however. (*c*) Implantation of one Intestine into another Vertically: The two cases in which this was done were successful. The conclusions arrived at were: (1) For lateral anastomosis Halsted's operation was best; a needle should be threaded at each end of each suture; the needles then had only to be passed in one direction. (2) For end-to-end suturing the most perfect result was obtained by Maunsell's operation, but the conditions will not always allow of its performance. (3) For certain cases implantation was indicated. Choice of Operation: There were three main conditions for which these operations were required—namely, artificial anus from any cause, gangrenous hernia, and malignant disease of intestine. The enterotome appeared to have fallen into disuse in the treatment of artificial anus, and the extraperitoneal operation was only applicable to certain cases; the intraperitoneal operation must therefore be used for the majority. This could be performed either by an end-to-end junction or by implantation, or by lateral openings after inverting and closing the open ends. The last was considered the easiest and safest proceeding, especially if the surgeon had not much experience in intestinal surgery; and of the methods of effecting it Halsted's operation was preferred to Senn's. For end-to-end anastomosis, which was the ideal operation, Maunsell's operation was perferred to all those in which recourse was had to mechanical aids, whether of decalcified bone or of

metal. The treatment of intussusception, gangrenous hernia, and malignant disease of the bowel was discussed; in the last the new growth should, if possible, be excised at the primary operation. Whether or not an attempt at reunion or anastomosis should now be made depended mainly on whether there was any chronic obstruction or not; if there was any to speak of, the reunion should be postponed, because the passage of pent up fæces and the muscular action which this required were unfavourable to surgical repair. 2. Gastro-enterostomy: Operations were performed by pure suturing and also by Paul's method with ivory rings. Both these methods were successful; their relative merits were discussed. 3. Physiological Observations: (*a*) in lateral anastomosis the blind ends became shorter, and probably would in time entirely disappear; the lateral opening gradually ceased to be lateral, and tended to come more and more in the natural direction of the bowel. (*b*) In short circuiting experiments the partially excluded portion, although not in any way occluded, became shorter and smaller. These short-circuiting experiments suggested a treatment for chronic volvulus; a lateral anastomosis would probably be more satisfactory than an artificial anus, and safer than total excision of the volvulus with reunion of the bowel. (*c*) In implantation experiments it made a difference whether the end of the upper bowel was implanted into the side of the lower or the reverse. In the former the blind end was small because the direction of its natural peristalsis was to expel its contents; in the latter case the cæcum was enlarged for the opposite reason. (*d*) In reversal experiments a lenth of intestine was completely turned round. The animals lived; the reversed portion diminished in length; there appeared to be some difficulty in the chyme entering the first part of the reversed portion; but the chyme once having entered, it seemed to have passed along satisfactorily in the direction opposite to the original peristalsis. (*e*) Certain changes occurred in the mucous membrane in these experiments. Above the seat of reunion the valvulæ conniventes disappeared for a time, possibly as the result of pressure.

Tuberculous Meningitis Ending in Recovery.

Janssen (Lancet) refers to the rarity of recovery in this disease. In a few cases the diagnosis has been established by finding evidence of a past tuberculous meningitis, the patient having died of some other cause. In Freyhan's case of recovery tubercle bacilli were found in the fluid drawn off by spinal puncture. The author then records the following case. A man, aged 19, was admitted in May, 1892, with headache, stupor, vomiting, and constipation. The temperature was raised, and at one time the pulse only numbered 42 per minute. Later there was ocular paralysis and retraction of the head. Some fourteen days after admission the patient began to improve, and he was discharged well a month afterwards. Three years later he was again admitted into hospital with early phthisis. The disease ran a rapid course, and he died four months later. At the necropsy a yellow mass, composed of minute tubercles, and measuring 4 centimetres long and 2 centimetres wide, was found running along each side of the longitudinal fissure. The pia mater was of a milk-white colour in several places over the convexity of the brain; there minute tubercles were also seen. The first named tubercles consisted of

detritus, fat, and a few cells, but no fibrous tissue; and the last-named of fibrous tissue and a few cells. In no instances were tubercle bacilli found. At the base of the brain the same white spots containing tubercles were seen about the chiasma and Sylvian fissures. In these white areas the pia mater and arachoid were adherent to the underlying brain tissue. As regards the treatment of this attack of tuberculous meningitis, the head was shaved, and iodide of potassium was given in large doses; 8 g. were at first administered in the day, but this quantity was rapidly increased. The patient took as much as 950 g. during the illness. There was a slight coryza, but no other unpleasant symptom. All the secretions and excretions gave a marked iodine reaction. The author thinks that the iodide had undoubtedly a favourable effect on the disease. This treatment is not new, but these large doses of iodide have not within the author's knowledge been used before.

Douches in Gynecological Practice.

Strassman is of opinion that with healthy genital organs douching is not necessary during menstruation, pregnancy, or after coitus, but only external washing. Lukewarm douches should be given when a pessary is being worn in the vagina and during menstruation. Hot douches of iodine solution should be administered in amenorrhœa of lactation, atrophy, and premature climacteric, but not in that of young girls, in defective involution and chronic disease of the adnexa alone or in conjunction with the massage treatment. It is very useful as a styptic in profuse menstruation, endometritis, myomata, and secondary uterine hemorrhages, and is best given as a tannic acid solution. Cold douches are occasionally valuable for the hemorrhage of uterine cancer. Medicated douches may be administered for various vaginal and uterine diseases. Lysol and bicarbonate of soda in "dry" catarrh: corrosive sublimate solution is useful in purulent catarrh when given by the medical attendant himself. In wounds of the vagina permanganate of potash, tannic acid, or boric acid are equally good. In gonorrhœa, during the acute stage, give a washing out of sulphate of zinc, but not a douche. In acute inflammations of the annexa no douches should be given. In suppuration creolin is the most advantageous, while in malignant processes iodoform gauze is the best treatment.

The Effects of Alcohol on Digestion,

According to Drs. Chattenden and Mendal alcoholic beverages—including spirits, wines and malt liquors—exert a retarding action on the digestion of proteids by the gastric juice and by the pancreatic secretion. The retarding action of the wines (sherry, claret and hock) is out of proportion to the amount of alcohol which they contain, and is probably due to the solid matters found in the wine. A similar effect is obtained with the malt liquors. The spirits (rum, whiskey and brandy), with a much higher percentage of alcohol, produce a less effect in retarding the digestive action of these secretions. The authors point out that these results must not be taken to show the effects of these beverages in the living body, since the experiments exclude the possible action of these drinks on secretion, on the movements of the stomach, or on absorption.

Antistreptococcus Serum in Scarlet Fever.

A. Baginsdy (Lancet) describes the use of Marmorek's serum obtained from the Pasteur Institute. He first refers to some of the complications of scarlet fever which are due to the streptococcus, and he draws attention to the close relationship between the virus of scarlet fever and the streptococcus. He was not always able to use a sufficient quantity of the serum, and this may perhaps account for some want of success. During four months he has thus treated 57 cases. Nine of these must be deducted, 2 cases were removed too soon from the hospital, 1 died in severe collapse four hours after admission, 1 case was complicated with fracture of the jaw, and another with phthisis, and 4 others were still under treatment. Among the remaining 48 cases the course was unusually favourable in 27. A suppurative otitis only occurred in 4 cases, and in only 1 case was there nephritis. A striking feature was the rapid fall of temperature after the injections. Very exceptionally was there albuminuria, and in only 1 case casts, blood cells, etc. The author gives details of 7 fatal cases; perhaps an insufficient amount of serum was used. In another group of non-fatal cases the patients seemed uninfluenced by the treatment. In a third group of cases the serum was only used in advanced cases, owing to complications. In 1 case, with ulcerative endocarditis, etc., no effect on the course of the disease was visible. In 4 other cases the results were favourable. In 48 cases there were 7 deaths, namely, 14.6 per cent., the usual mortality during five years varying from 22.6 to 34.4 per cent. The death-rate among 238 other cases not treated with serum, and belonging to the same epidemic, amounted to 24.9 per cent. The cases treated with serum were not of a less severe type than the others. The author concludes that Marmorek's antistreptococcus serum is worthy of a further trial in scarlet fever.

Diagnosis of Porencephalus.

Brissaud (Edenburg Medical Journal) discusses the difficulty of diagnosing true porencephalus from other causes of infantile cerebral hemiplegia, that is, cerebral hemiatrophy, sclerosis of one hemisphere or lacunar cysts, either ischæmic or hæmorrhagic. Pseudo-porencephalus is hard to distinguish from the true variety, as in both there is hemiplegia, with contraction, athetoid movements, and arrest of development on the paralysed side. True porencephalus is a defect of conformation rather than a destructive lesion, though a secondary atrophy, due to crowding of the convolutions and traction from the bottom of the cavity, may take place as the brain grows, this explaining the late appearance of some clinical phenomena. Epilepsy or mental deficiency is not usually found. On the other hand, simple sclerosis or atrophy of the convolutions give rise to epilepsy, mental disturbances, dullness, or idiocy. Softening or hæmorrhage is accompanied by descending degeneration and permanent contraction; these conditions are rarely associated with porencephalus. The malformation of the head, common in sclerosis or simple atrophy, is chiefly marked in the interior of the cranial cavity; plagiocephaly does not generally exist in extensive lesions of the brain. But in porencephalus some degree of deformity is the rule. It is probable that deformity of the skull without corresponding deformity of the face, in a non-degen-

erated subject affected with spasmodic hemiplegia who has never presented symptoms of convulsive or mental disturbance, is due to limited arrest of development of one cerebral hemisphere. The condition described as hemiatrophy is not, of course, a retrogressive phenomenon; growth is merely retarded without obvious deformity, and with an insignificant difference in the length of the bones. The deviation from perfect symmetry is slight. Growth is retarded in the limbs because they have little or no function, not because the influence of the centres is interfered with. The muscles most directly subject to the will show the most marked degree of atrophy, this only becoming apparent when voluntary movements begin to be exercised. In infantile spinal paralysis the muscles and bones no longer receive stimulation from the centres, and are atrophied to a much higher degree. A genuine arrest of development does not justify the inference that the nerve centres are, or have been, diseased.

Thyro-Iodine.

E. Baumann (Edinburgh Medical Journal) has, with E. Roos, been endeavoring to separate the active principle of the thyroid gland, and has, he thinks, succeeded. Roos has already shown that the active principle was not destroyed by boiling thyroid gland substance in dilute sulphuric acid (10 per cent.) When the fluid is allowed to cool the active principle forms part of the precipitate. This precipitate is removed by filtration and treated with alcohol (about 85 per cent.) The residue is treated with petroleum-ether to remove fat and fatty acids, and is then dissolved in a 1 per cent solution of caustic soda. This is filtered, and by the addition of dilute sulphuric acid a precipitate is formed, which when carefully washed and dried appears as a brown amorphous substance. This substance, which has been termed "thyro-iodine," is remarkable on account of its containing iodine in firm chemical combination, and by actual experiments as to its action seems to be the active principle of thyroid gland preparations. It is almost insoluble in water, and only slightly soluble in alcohol, but easily soluble in dilute alkalies. Baumann says thyro-iodine has been shown to have the same therapeutic action as the thyroid gland itself in parenchymatous goitres, in myxœdema, and in obesity. These results occur more rapidly than under ordinary thyroid treatment. The quantity of thyro-iodine present in the thyroid varies considerably. Abnormally large thyroids contain only a slight trace of iodine. In 26 adults with enlarged thyroids only a trace of this compound was found. In children there is less thyro-iodine than in adults; the largest amount occurs be 25 and 55. Whether in goitrous districts there is less iodine in the earth and drinking water is not certainly known. For men and a large number of animals living on land iodine is necessary. Thyro-iodine undoubtedly passes from the thyroid gland to other organs. Iodine can be proved to exist in the thymus, and the investigations of Mikuliez, showing the diminution of goitres under thymus treatment, are interesting in this respect. If potassic iodide is given to animals the iodine present in the thyroid is increased. The same happens with iodoform and other iodine-containing compounds, but it is most marked after the use of thyroid or thyro-iodine. That thyro-iodine is manufactured in the thyroid, and is not a product of general metabolism, is shown by the fact that thyro-iodine

is efficient in myxœdema and iodine is not. The author concludes that less thyroid exists in goitres than in normal thyroids. In five colloid goitres he found very little iodine. In Graves's disease the same is apparently true, but further investigations are needed. Sheep's thyroid is relatively the richest in thyro-iodine. Grawitz has investigated the action of thyro-iodine on metabolism in two women suffering from obesity. The decrease in weight of 3 lbs. in eight days was striking; only 1 g. of thyro-iodine was given daily. The increase in the nitrogenous excretion in the urine was remarkable; it amounted to 31 g., and accounted for the loss of weight. In the second case, after a week, 2 lbs. was lost, and subsequently 3 lbs. The general health was undisturbed.

Electricity in the Treatment of Rheumatoid Arthritis.

Dr. Julius Althaus in 1872 suggested the systematic use of electricity in rheumatoid arthritis. The late Dr. Steavenson, of St. Bartholomew's, obtained some excellent results from the use of the galvanic bath, which is, by far the most efficient method of applying electricity in the treatment of this disease. Two forms are used, the constant current and the alternating current

The bath is given at a temperature of from 92° to 94°, and lasts from ten to twenty minutes, the dosage being carefully regulated by an Edelman's galvanometer. The constant current is especially useful in cases where there is an excessive amount of pain and irritability, and is also of exceptional service in many cases of the utero-ovarian variety. The alternating current, carefully regulated as regards voltage, passes backwards and forwards through the patient, from 50 to 100 times in the second as required. There is not the slightest pain, shock, or discomfort in taking either of these baths, which is a point of no small importance in dealing with delicate and nervous patients. The alternating current has a remarkable effect upon nerve nutrition, and greatly helps metabolic changes. By means of a branched cord and a spade electrode any special joint or nerve may be acted upon.

The following effects, in a greater or less degree, attend the use of the galvanic baths in the great majority of the cases treated: (1) definite increase in strength, both nervous and muscular; (2) improvement of appetite, digestion, and general nutrition; (slowing and steadying of pulse (in acute cases); (4) marked decrease of joint swelling and pain; (5) even in chronic cases, improvement in power of movement and arrest of muscular atrophy.

The acute form of rheumatoid arthritis is probably one of the most terrible non-mortal ailments known; it frequently comes on in young subjects, and progresses more or less rapidly till it leaves the sufferer a crippled wreck.

Most of these patients are in feeble health and there is often a neurotic or phthisical family history present. They should be given rest both of body and mind, and have steady and somewhat forced feeding, with carefully prepared nutritious food. In many cases pronounced benefit is found if the patient is placed under the care of strangers—in fact, a course of "Weir-Mitchellism," with this difference: that the patient should, on a reclining wheeled chair, spend as much time out of doors as possible,

and that the constant current galvanic bath should at first take the place of massage; this treatment, with cod liver oil wine and the liq. auri et arsen. bromid., has given excellent results in many severe cases.

Hepatic Abscesses.

Ricard (Edenburgh Medical Journal) in a report on six cases of hepatic abscess, points out that such abscesses, though very often sterile, are not always so. In acute abscess of the liver due to general streptococcus infection the virulence of the purulent collection is very intense, and indicates prompt intervention. The cases in which the pus is usually sterile are those of slowly developed abscess following chronic dysentery. An hepatic abscess when seated, as is so often the case, in the upper and back part of the right lobe, is best treated, Ricard states, by resection of a portion of the ninth or tenth rib, and transpleural laparotomoy, the pleura being stitched to the diaphragm in the absence of adhesions. When the anterior portion of the liver is involved, the abscess should be exposed by anterior laparotomy, the edges of the external wound being stitched to the surface of the liver if practicable. In one of Walther's cases, in which this could not be done, the pus was removed with an evacuating trocar, and the abscess cavity thoroughly washed out before the opening was finally enlarged and its edges fixed by sutures to the wound in the abdominal wall. Ricard is opposed to the practice of scraping the inner surface of the abscess cavity, and holds that simple injections after incision are quite sufficient and les dangerous. Of the six patients treated by Walther, four recovered and two died. In three of the successful cases the hepatic abscess was of dysenteric origin. In each of the two fatal cases the abscess was acute, and due to general septicæmic infection.

Phenacetin in Typhoid Fever.

G. Bignami (Chemical Journal) says that for four years he has treated his cases of typhoid fever exclusively with phenancetin. Of more than 200 treated in this way, all in private practice, he has lost only 6 "through the disobedience or the miserable surroundings of the patient." When the disease is definitely diagnosed or suspected, the author at once orders 45 grs. divided into six doses, one to be taken every four hours; this is continued throughout the first week. In children and old people the prescription is reduced to 2 or 1½ gr. in the day. Afterwards he gives ½ gr. regularly every six hours to adults, and half that amount to children and old people till the temperature, taken at different times in the day, remains normal for at least two days. The author has rarely observed cyanosis, and only as a transient phenomenon; he has never seen vomiting, itching, rashes, nephritis, hæmaturia, convulsions, or collapse. The mode of action of the drug he believes to be that on the one hand it neutralises the causes and injurious effects of the typhoid poison, and on the other it assists the organism to expel it by the sweat. He sums up his experience in the following conclusions: (1) That phenacetin may have a most favourable action on the course of typhoid fever; (2) that it often has an abortive action on the disease process.

Ammonol.

By R. G. Eccles, M. D.

"Never order or sanction the use of a quack medicine; that is, one the composition of which is kept a secret." This is rule eight of Dr. Dunglinson's rules for medical men in his "Practitioners' Ready Reference Book."

Such a rule is true to science, true to humanity, true to the traditions of the medical profession, and true to sound ethics. Any doctor who disobeys it is recreant to the high trust reposed in him, he violates the fundamental tenets of morality and makes himself a traitor to science. Was it by secrecy or the support of secrecy that it became possible for him to be a medical man. If others before him had done as he is doing, if they had sanctioned secrecy in medicine, how would it ever have been possible to have built up a medical science; If in physics, biology, chemistry and other departments of science each discoverer had refused to give up the knowledge of his discovery we would to-day be a race of naked savages. Secrecy in medicine is a crime against humanity. It bears the mark common to every crime. It is wrong to steal, because civilization could not be possible if every one stole. It is wrong to kill, lie and commit other crimes for the same reason. Secrecy in discoveries is equally wrong, because it would, if universally adopted, make civilization impossible. The man who holds secret a truth the world needs is an enemy of his race.

The manufacturers of ammonol evidently had Dr. Dunglinson's rule in their minds when they gave as their tenth reason "why ammonol is unique among coal-tar derivatives" that "it is not a secret preparation." As we glanced over the names of the medical men who had recommended it and saw there a president of a Board of Pharmacy, a president of a State Board of Health and other high dignitaries in the medical profession, we concluded that surely "it is not a secret preparation." When we read on the label that it was "for dispensing purposes only," and "the contents of this bottle to be sold only as an ingredient in dispensing prescriptions, prepared in accordance with a prescription of a qualified medical practitioner," we were almost fully persuaded that "it is not a secret preparation." When we turned the bottle around and read on the other side, "1 oz. Powdered Ammonol (Ammoniated-Phenylacetamide" we saw what appeared to be further evidence of the apparent fact that "it is not a secret preparation." Ammoniated means mixed with ammonia. As the public name for carbonate of ammonia is lump ammonia, we decided, on smelling the contents of the bottle, that it was ammoniated with lump ammonia. As phenylacetamide is the chemist's name for what is better known as acetanilid, we believed we here saw a confession of the composition of ammonol. It is true that this combination of a popular name with a chemical one might tend to mystify some, but on the assurance that "it is not a secret preparation," we proceeded in search of the true formula, so as to discover in what proportions the manufacturers mix their carbonate of ammonia and acetanilid. The next step in the research brought us face to face with a most inexplicable mystery. Directly underneath the words "Ammoniated-Phenylacetamide" appeared the chemical formula ($C_6H_5NH_2$). When a chemist puts a formula under or after a chemical name he means that it represents the chemical structure of the

substance to which the name applies. But here was a poser. It caused a complete collapse of our theory to occur. If this is the formula, then ammonol is not ammoniated-phenylacetamide after all. This formula was as familiar to us as the face of any old friend. We had seen it day after day for months and years in our laboratory, but always on a bottle that contained a liquid, and never, as here on a bottle containing a powdered solid. To us it had stood for anilin oil, the substance used in the manufacture of all the beautiful anilin dyes. In chemical union with acetic acid it likewise forms acetanilid. What business had it on this bottle? Is it a printer's mistake? Did the manufacturers absent-mindedly put it here while intending to put down the two formulæ of carbonate of ammonium and acentalinid? Or can it be that they ment to deceive the medical profession by so transparent a device? It does not seem quite creditable that they should think that they could in this way make the doctors believe that ammoniated-acetanilid is a chemical unit, and that it bears the same formula as anilin.

In the circular that accompanies the bottle we are told that "Am monol, like the majority of the more recent discovered Antipyretics, is a product of the Amido benzene series ($C_6H_5NH_2$)." This certainly implies that it is a definite chemical compound, and as amido-benzene is another name for anilin, they here tell us that it is a product of anilin. The acetanilid certainly is, but what of the ammonium carbonate? Here, again, we have reason to be sceptical concerning the statement that "it is not a secret preparation." When farther on they say 'It is the only coal-tar product that has stimulating and expectorant properties," they again imply that it is a definite body and not a mechanical mixture. If it is a definite chemical body why do they not give its true chemical formula instead of that of anilin? Their statements are all shrouded in mystery, and appear to disagree among themselves. Even their description of its properties is as incomprehensible as a dissertation on ultra-metaphysics. They tell us that "it occurs in amorphous crystals." Perhaps they know what this means. If it is amorphous how can it be crystalline, and if crystalline, how amorphous? Do they mean that the carbonate of ammonium has effloresced and is therefore amorphous, while the acetanilid is crystalline? If this is their meaning, the diction is certainly rather awkward. They quote from Gaillard's Medical Journal an article that says: "The ammonia is probable in combination with some basic salt, into which it has entered during the process of manufacture." Here is confusion worse confounded. The writer of this either knew whereof he was writing or he did not. It is our opinion that he did not, If no more reliance can be placed on the rest of what he says concerning it, our commisseration is due the readers of such an article. The one redeeming word in the quotation is "probably." It showed that the writer was willing to acknowledge his own uncertainty. It showed that he did not know its composition. It also showed that he was conscious of his own ignorance. Why then did this journal violate the traditions of medical science and the tenets, of sound medical ethics by sanctioning the use of a remedy "the composition of which is kept a secret," and that is, therefore, according to Dr. Dunglinson, "a quack medicine" to him? Why did he not ask the manufacturers to enlighten him before endorsing it? With proper information, it would have ceased to be "a quack medicine," if the doctor is correct.

The American Medical Association has lately been discussing the question of sanctioning the use of secret remedies. The editor of the journal of the association was instructed to exclude all advertisements of proprietary preparations, the formulæ of which were not supplied by the manufacturers. Glancing over a late number, our eyes came across an advertisement of ammonol. We instantly concluded that this was evidence that the Ammonol Company was telling the truth when it asserted that ammonol "is not a secret preparation.' With confidence thus re-established, we wrote to the editor asking him to kindly inform us regarding its composition. In his reply he informed us that the Ammonol Company had a contract prior to the enactment of the new rule. When their time is up he expects them to withdraw, as they have not offered to enlighten him concerning the nature of their remedy. This certainly does not look as if ammonol "is not a secret preparation." Their literature nowhere reveals its composition. In a pamphlet issued by them entitled "Ammonol Excerpta," a writer speaks of "The discovery of the coal-tar synthetical products, and particularly ammonol," thus implying that it is a synthetical coal tar product. Is it?

Wearied of all this research and thrown upon our own resources for information concerning its composition, we proceeded to find out something about it in the laboratory. A number of free samples which the manufacturers had sent were first examined, and then an ounce bottle was opened and its contents studied. We found the samples and bottle contents varied from each other in color. One was of decidedly a yellowish hue and the rest were less and less yellow, to the lightest, that was of a very pale stray-color. Here was evidence of a variation in composition. A determination of the total alkalinity also showed that no two of them were alike. The volatility of the ammonia present probably accounted for this. Some of the samples had a decided ammonia odor, while others barely revealed any. On adding an acid they all effervesced freely and the gas given off proved, on examination, to be carbon dioxide. This was evidence of the presence of a carbonate. When shaken up with water, the coloring matter was dissolved and formed a yellow solution. By placing a sample in a filter and washing it well with water, all the color was removed, thus demonstrating that it was in no way chemically related to the mass, but a mechanical addition. On testing the white powder that remained on the filter it was found to be pure acetanilid. On burning some of the ammonol in a platinum basin, about one-sixth of its weight was found to be inorganic. On dissolving this in dilute dydrochloric acid it formed pure table salt. The amount of carbon dioxide present and the absence of acid radicals other than the carbonic showed that the sodium and ammonium both exist as carbonates or bicarbonates in the mixture. By making the colored solution acid it changed suddenly from yellow to purplish-red, and then to a light wine-red. This change from purplish red to light wine-red indicated that the coloring matter was dual.

The exact determination of the quantities of the various ingredients in a mixture like this is one of great difficulty, and takes much time. The determination with sufficient accurrcy to be able to practically duplicate them is not quite so difficult. If the reader who is curious to experiment with such preparations will take six parts of acetanilid, three parts of sodium bicarbonate and one and a half parts of ammonium bicarbonate and

mix them together he will get a preparation giving all the medicinal results that can be had from ammonol. If he will add twenty centigrams of methyl orange to every thousand grams of such mixture and then incorporate with this enough curcumin to give the whole the same yellow tinge as is possessed by ammonol, he will practically be able to duplicate its various chemical reactions as well as its medicinal.

It will be well for druggists to call the attention of medical men who use ammonol to these facts.

Constipation.

Soft food is one of the first causes of constipation, and in trying to treat constipation one of the first means to which we have recourse is to bring our patients back to the conditions under which less civilized nations usually live. We advise them to take bread either consisting of whole meal or with a greater or less admixture of bran. We advise them to take vegetables in abundance, either cooked, such as cabbage, spinach, brocoli, Brussels sprouts, cauliflower, carrots, turnips, parsnips, and the like, or we advise them to take vegetables such as tomatoes, celery, and so on, raw as well as cooked. In America it is very common indeed for people to begin or finish their breakfast with a slice or two of raw tomato or a slice or two of melon, and these fruits very often are sufficient to keep the bowels open. In this country we not infrequently recommend patients to take in the morning a raw apple or two, suck an orange or two, or eat a fig on an empty stomach before breakfast, and here also we very frequently find that we get the desired result. One of the most common of the fruits we prescribe is stewed prunes, and frequently these keep the bowels open, or a stewed or roasted apple or two may do so also. Many patients, however, find that even stewed prunes are inefficient to keep the bowels open, and in such cases one may succeed in getting a regular movement by simply taking some senna leaves, tying them in a muslin bag and putting them into the pan beside the prunes to be stewed. This very simple plan has in some cases that I have had under treatment succeeded when the ordinary method of just recommending stewed prunes has proved insufficient.

Fruits also contain, as a rule, salts of vegetable acids, and many of them contain sugars, and both these salts and the sugars are of importance as laxatives. In the case of a fig, we find that there are three kinds of laxative properties: there is (1) the mechanical irritation due to the altogether indigestible seeds; (2) the stimulus given by the vegetable salts contained in the fig; and (3) the stimulus given to the bowel by the sugars.

Water, insufficient in *quantity*, or abnormal in quality, is also a cause of constipation. We find that civilized people are very often in the habit as it were of cheating the natural desire for water by taking wine, and many people, especially ladies, are in the habit of taking less water than they like because if they drink more water it will pass through the kidneys and the exigencies of society may prevent them from emptying the bladder as frequently as they would wish, and, therefore, they get into the habit of taking much less water than is advisible. A dryness of the bowel constantly results from this, the fæces become dryer and harder, and so constipation occurs.

Bicycles for Women.

Dr. Turner (London Lancet) says: There is no reason whatever why any sound woman should not ride either a bicycle or a tricycle. For the slim and active a bicycle is decidedly the better mount, because in the first place it can be built lighter, and consequently is easier to propel, and secondly because being a "one track" machine it is possible to pick a small smooth path where the road is rough and stony, whereas a tricycle requires three smooth tracks, one for each wheel, to be really comfortable. The bicycle is also the safer mount. When once the difficulties in acquiring a stable equilibrium are overcome the balance becomes automatic, and then in case of danger it is much easier for a woman, clad in a skirt, to dismount and free herself from a bicycle than from a tricycle. On the latter machine she is shut in between the handle bar in front, and the side wheels and seat-pillar behind, and has to stick to her mount until it and she come to earth together. Of course for the middle aged and very portly a well designed tricycle is more easy to mount, and to dismount from when at a standstill, and it has the additional advantage of allowing a more dignified appearance, but it misses the exhilaration of the balanced wheel, and the gift of improved nerve tone which experience shows a course of judiciously regulated bicycle riding confers on the weaker sex. Of course if a woman be garbed in so-called rational dress (that is loose knickerbockers and coat) the objection that she cannot dismount from a tricycle in motion does not obtain, for she can get off backwards in the same way as a man. But as æsthetic reasons alone are likely to keep the vast majority of cycling women skirt clad this need not be taken into practical account when considering all the questions which arise when advice is sought whether a woman should ride at all, and, if she should, then which class of machine.

The question whether women and girls should cycle at all has attracted much attention. Many physicians and surgeons have placed their experiences on the subject on record, and with hardly an exception there is a consensus of opinion that the exercise of wheeling, properly regulated and indulged in at proper times and seasons, is of great benefit to all sound women and girls, and has frequently had a curative effect in cases of atonic dyspepsia, anæmia, constipation, functional nerve troubles, and general "flabbiness," and that good has also ensued in various conditions of organic unsoundness.

In the case of girls objection has been raised to the use of the cycle on the ground that it may cause enlargement and hardening of the muscles lying on the pelvic inlet, and thus by diminishing the size of the canal cause subsequent parturition to be more difficult. Experience does not bear this out, nor is it tenable in theory. When a woman rides properly and has her machine rightly adjusted to her length of reach the flexion of the thigh on the pelvis is very small, not much more than in walking up a slight hill, and the psoas and iliacus can hardly become so enlarged as to cause any difficulty. The greater portion of the work is done by the extensor muscles of the thigh and those of the calf and leg which control the movements of the ankle.

If a woman sit on a machine in the ridiculous attitude affected by some beginners, with the saddle 3 inches too low and the handles 6 inches too high, then the work is done at a great disadvantage with an impro-

perly flexed thigh, and more stress is thrown on the muscles of the iliac fossa, but even in such cases which have come under observation the process of parturition has pursued a perfectly normal course. It has also been suggested that the friction of the saddle peak on the external genitals may be communicated to the sensitive portions at the anterior part of the vulva, and thus lead to the practice of masturbation. This is a most unlikely consequence. When the saddle is accu-ately adjusted the woman should sit fair and square on her tuberosities on the back of it, and the pressure of the peak on the perineum and external labia should be almost *nil*, and all those parts should be entirely at rest during the movements of the thighs necessary to propel the machine. There can be no friction between the labia majora which could in any way affect the clitoris or nymphæ unless the seat was inches too high and the rider while in motion purposely rolled from side to side; and if the peak directly impringed on those parts, a very few jolts on a rough road would be so painful that the position would soon be altered. The French physician is right who, treating of this subject, says that if such cases occur it is the woman and not the bicycle which is at fault, and that those who wish to indulge in such practices will not take the trouble to cycle to obtain their gratification. The healthy exercise in the open air may also be trusted to minimise the inclination to such exces.

A woman then may safely be allowed to ride, provided that she is healthy and that she be content to keep well within her powers, gradually increasing the distance ridden as she becomes more "fit." She must not ride during the menstrual period, during the time of pregnancy, nor for three months at least after her confinement. An exception to this last rule occurred within the experience of the writer. A lady, an expert cyclist, was utterly unable to walk during the latter months of her third pregnancy, and with great benefit to her general health rode short easy distances on a tricycle regularly until a day or two before her confinement, which was easy and natural, and the child healthy and well formed. This is the exception which proves the rule, and should not be taken as a precedent. It must be distinctly understood that anything in the way of racing or speed competition on cycles must be injurious to any woman, and should never be allowed. It is also most important that each rider should have a machine properly fitted and adjusted to herself. You can get no good results from walking in ill fitting boots. Observe these simple rules, and it will be found that cycling will mean health to thousands of females.

Fatal Rupture of Vagina During Labour.

Fraipont (The Hospital) reports two cases, both occurring in multiparæ over 40. The presentation was transverse in each instance. Labor occurred in the first patient at the end of the sixth month, after hæmorrhages had continued for eight weeks. Marginal placenta prævia complicated the shoulder presentation. Several days were wasted, and the patient was admitted into a lying-in hospital moribund. Version and extraction were at once performed, then a hole was found in the posterior *cul-de-sae.* Plugging proved useless; the patient died within three hours. No blood was found in the peritoneal cavity; the vaginal wall was torn through posteriorly, and the peritoneum in Douglas's pouch detached.

The second patient was in labor at term; she had already been six times pregnant. After two practitioners had failed to deliver, the shoulder presenting, the patient was admitted into hospital very pale, yet but little flooding had occurred. The uterus was empty; the child lay to its right. A large child dead (as in case 1) was extracted through a hole in the right lateral fornix. Part of the cord and placenta could not be removed. The patient died within a few hours. On opening the abdomen, the peritoneal cavity was found quite free from blood, but the whole of the posterior pelvic layers had been detached and pushed far upwards. Thus a wide cavity, in which the fœtus had lain, existed below the peritoneum; it communicated with the vagina through the laceration, but there was no opening into the cavity of the peritoneum or of any adjacent viscera.

The Treatment of Acute Tonsilitis.

H. Ripault (London Lancet). The abortive treatment to have any chance of success should be employed in the first twenty-four to thirty-six hours. Painting the tonsils with solutions of nitrate of silver or guaiacol have not proved of any value, and have been found even to increase the functional troubles. Much more efficacious is the internal employment of salol. If this remedy does not arrest the inflammation in the great majority of cases, at least it shortens the attack, and always minimises the acuteness of the dysphagia. It is administered in emulsion, as much as 60 grains being administered in twenty-four hours. If no improvement is obtained at the end of twenty-four or thirty-six hours, it is useless to persevere with it. Ice should be given to suck, and either iced or hot compresses externally. But more valuable as regards local medication is the use of irrigations to the pharynx of one or two litres of water as hot as can be borne, and frequently repeated. It is found that the addition of any drug is of secondary importance, the important points being that the irrigations should be copious and as warm as possible. Owing to the difficulty of swallowing anything the pain in the throat is best relieved by a hypodermic of morphia. Nourishment should be pulpy rather than liquid, and always cold.

Tonsillitis is apt to leave behind it some disorder of the digestive tract, which is best met with saline aperients, bitter tonics, and change of air. The surgical treatment of quinsy is not only called for to give vent to suppuration, but also to prevent it. This is effected by a local bleeding, which relieves at the same time the pain and the tension. The blade of a sharp-pointed bistoury is wrapped round with a leaf of moistened cigarette paper to within a centimetre of its extremity, and one or two incisions are made in the tonsil rapidly, from above downwards. The majority of acute cases of tonsillitis end in the formation of pus, which develops in the periglandular cellular tissue and soon spreads into the thickness of the soft palate. When and where should it be opened? Suppuration has generally not formed before the fourth or fifth day. The aspect of the soft palate is indicative; the affected half is of a dark red colour, and projects strongly forward. With this there are pulsating and lancinating pains, spreading up to the ear, and almost incessant. The point where the abscess should be opened is along a line passing transversely through the base of the uvula at 1½ centimetre outside the anterior faucial pillar. If pus does not at once appear on incising this point,

it may be sought for with a grooved probe; but as this manœuvre is painful it need not be persevered in very long, for as a rule the pus may be seen oozing out of the incision the following day. In doubtful cases the seat of suppuration may be sought for with a hypodermic needle. The suppurating cavity should be syringed out with corrosive sublimate, and the mouth and throat irrigated until well. As the crypts of the tonsils are the starting points of these accidents they must be removed either by tonsillotomy, *morcellement*, or the galvano-cautery. Remembering the influence of naso-pharyngeal catarrhs and adenoid vegetations, these troubles should be sought for and treated, and amongst other prophylactic measures the mouth and teeth will be looked after.

Vaccination.

While there is nothing of any importance that human beings can do which is absolutely without risk of some sort, vaccination is yet an exceedingly safe proceeding. Taking all the death registrations in which it is mentioned as having any part in the matter (and in many of such cases it is a mere incident), there are not much more than one-twentieth of the deaths set down to it that are set down to the suffocation of children by bedclothes. Nevertheless, as a result mainly of an active propaganda, vaccination has in some districts to bear the blame of many of the ailments which befall children in the course of their ordinary upbringing. There is in the minds of some people an impression that "humanised" lymph is apt to convey all kinds of diseases from the vaccinifer to the vaccinee. Among medical men no such fear prevails, and in their own families they do not hesitate to use lymph taken from a healthy child. But there is no reason why consideration should be refused even to this ill-founded fear. In calf-lymph we have an inoculative material at least equally safe (theoretically even safer) and not necessarily less convenient. On the Continent (where probably arm-to arm vaccination was not performed with the same care and caution as in this country) calf lymph is now almost universally used. It is quite free from one particular risk, which though almost infinitely unlikely of realisation is yet most serious when realised. In one respect calf lymph possesses a great advantage over arm-to-arm lymph; in emergency it is capable of indefinite multiplication, so that material for the vaccination of a whole city can be prepared within a very short time by the simple expedient of vaccinating from one or two calves as many moae calves as may be required for the purpose. With humanised lymph this is impossible, as the whole stock obtainable on any one day from the largest vaccination station in the kingdom would suffice for only a very limited number of fresh operations. In an epidemic, moreover, many of the vaccinees are adults and these should never be used as vaccinifers. An experienced vaccinator can produce good vesicles up to within a fraction per cent. of his insertions. With stored calf lymph, however, the success is probably not so great. On the other hand, it is urged in favour of preserved calf lymph that the glycerin with which it is commonly mixed has the effect of destroying extraneous infection, such as that of erysipelas, which is about the only genuine risk that ever really does accompany vaccination, and, rare as is serious vaccinal erysipelas, it is yet very important that so far as may be it should be avoided.

Cerebral Exercise.

Frenkel (London Lancet) describes a method of treating certain motor disturbances such as paralysis agitans, Sydenham's chorea, convulsive tic and aphasia, by subjecting the muscles affected to a process of re-education by means of a series of graduated systematic exercises. A reflex influence is thus exerted on the nerve centres presiding over these movements. Care must be taken to ascertain the manner of the manifestation of the ataxy, the peculiarities of its extension, and degree of intensity. The exercises are at first very simple, and are afterwards replaced by more complicated ones according to the nature and progress of the case. The muscles of the trunk play an important part in locomotion and must not be overlooked. Results vary, but are sometimes remarkably good. A case is quoted in which a patient had been seven years bedridden who now walks well with no signs of ataxia. Improvement is found to be limited to the movements directly affected by the exercises, and can only be explained by the assumption of a favourable influence exerted by the treatment upon the functions of the brain. For instance, in paralysis agitans the cause of the disturbance is generally thought to be in the central nervous system; the cerebral symptoms are, however, probably reflex and the affection really of peripheral origin. The patient is made to endeavor to contract the affected muscles during one or several sittings daily. The muscular rigidity gradually disappears, and patients who have been for years unable to move acquire power to walk and move the head and even to write. In chorea, patients are required to execute the same movements which result in the choreic spasms, endeavoring to transform involuntary into voluntary movements. Considerable improvement has been effected in cases of convulsive tic by the same method. It is obvious that the treatment is only useful when the subcortical or spinal organs of transmission are intact. Myelitis, multiple sclerosis, or spasmodic paraplegia receive no benefit from it.

A Standard of Physique for Doctors.

The most obvious remedy for the overcrowding which makes the struggle for life so hard in the medical profession at present is the elimination of the unfit. (British Medical Journal). The agency to which reformers generally look for the accomplishment of this desirable end is increased severity of the initial examinations. Professor Bayard Holmes, of Chicago, has found an easier and perhaps a more merciful way. He insists that the young man who aims at becoming the most useful doctor should have "a perfect body." "When," he says, "this young man decides to begin the study of medicine, he should not be less than 17 years old; he should not weigh less than 61 kilogrammes (135 lbs.) and stand 171 centimetres on his bare feet (5 feet 7 inches). His chest on full inspiration should measure not less than 89 cm. (35 inches); head should measure 19.5 by 15.5 cm. He should not have any heart lesion, nor any varicocele or hæmorrhoids. There should be no evidence of tuberculous disease of the lungs. His skin should be clean, tough, and thin." Furthermore, "he should not be lame, blind, or deformed." We should like to add, on our own account, that, to prevent difficulties with the stethoscope, he should not be deaf. It might perhaps also be suggested that "thinness"

of skin is a quality likely sometimes to prove inconvenient to a doctor. On the whole, however, Professor Bayard Holmes's idea of a standard of physique for the profession has a business-like character that must commend it to practical men. As Plato wrote over the door of his Academy, "Let no one ignorant of geometry enter here," so the powers that be might inscribe on the portals of the profession, and intimation that no one under 5 feet 7 inches in height, and less than 35 inches in chest girth, need apply. This would simplify matters, for the winnowing process could be carried out by a recuiting sergeant, and would save much expense and disappointment both to young men and their parents and guardians. The standard might be raised if the supply of candidates were ever in excess of the demand; and, on the other hand, if a dearth occurred, a hint might be given to the examiners not to "draw the tape too tight" as is sometimes, we believe, done at recruiting stations when men are badly wanted. The only further suggestion which we have to make is that it might be well to have a limit of height in the upward as well as in the downward direction. What Charles Lamb called "intolerable procerity" is uncomfortable to a man who has to do a good deai of his work in a stooping position, and probably the avarage patient would prefer not to have a giant at his bedside. The Japanese are a sensible folk, and when they asked some years ago for European doctors for their hospitals, they expressed a preference for men of no great stature as likely to be more sympathetic with a people most of whom are short. Perhaps 6 ft. 6 in. would be a reasonable level at which to draw the line, but we leave the discision of this point to Professor Bayard Holmes.

Location of Cancer of Breast.

As regards the locality in which cancer of the breast in its early stages is apt to occur, the records of 353 cases in St. George's Hospital show that there is no essential preference for one side more than the other, and both breasts are affected simultaneously in only about 3 per cent., a lower average by far than noticed by many other observers. Most of the growths seemed to have occurred near the nipple, and in far the larger proportion of them the important phenomena of retraction of the nipple was observed. A favourite site is the upper and outer quadrant, though cancer may originate in any portion of the breast substance; and if it lies very deep, or far away from the centre, retraction of the nipple need not be observed.

Hardness is one of the most striking and reliable characteristics of scirrhous cancer. On placing the fingers "flat" upon a breast tumour, if the latter feels like a piece of wood or stone let into the tissues, it can hardly be anything but carcinoma. The contour is rarely perfectly globular, more often it is obtuse or irregular, and any distinct demarcation from the surrounding mammary tissue cannot be demonstrated. Although hardness is so characteristic of scirrhus, this must be often felt to be properly appreciated, and I would here specially point out to you that a dense, thick-walled cyst, a chronic abscess tightly distended and surrounded by inflammatory tissue, or an area of breast tissue thickened by chronic inflammation, may all be exceedingly hard, indeed so hard as to deceive even expert observers.

Arsenic.

Arsenic is now recognized as the most powerful anti-periodic except quinine, and it may succeed where quinine has lost its power, and it is stated that the relapses are longer delayed under the treatment by arsenic than by quinine. It is useful also in all affections of malarial origin, and especially in those malarial neuralgias the causes of which are so difficult to determine. I do not know that any satisfactory explanation of its action in ague has been given, yet it may lie in the action of arsenic on the blood cells in which the parasite of ague is found.

It is one of the stock remedies in all the chronic diseases of the skin, and especially in psoriasis. In some cases of chronic eczema it is found useful, but in many its use is disappointing, and in some it does positive harm. It is largely used in animals to give them a fine glossy coat, and in Styria and the Tyrol it is habitually taken by both men and women to produce *embonpoint* and fineness of complexion. Of recent years it has been largely advocated for the treatment of herpes zoster and post-herpetic neuralgias.

For asthma it is a very old remedy and in certain cases almost a specific, being administered either by the mouth or by inhalation, as in the form of cigarettes. As a general tonic it is useful in a variety of conditions, provided it does not upset the stomach, but this can be generally avoided by giving it in small doses after food. Of recent years it has been largely used in affections of the nervous system, possibly because of the affinity which the drug shows for nervous tissues. Thus it has been given in epilepsy, but I think without much success. For neuralgias of all kinds it is an effective remedy. Its chief use is in malarial neuralgia, e. g., brow ague.

The nervous disease for which it is most employed at the present time is chorea. It used to be recommended that small doses should be given and continued for some time. The result was not very obvious. Recently large doses have been advocated as soon as the patient comes under treatment, even as much as fifteen or twenty minims of the liquor arsenicalis three times a day even to a small child. It is often easy, if the drug be gradually increased, to reach amounts like this in the adults as in children, but it is somewhat startling to begin with such large doses from the first.

The Nose and Micro-organisms.

According to Drs. Thomson and Hewlett, the mucus in the interior of a healthy nose is practically sterile, whilst the vestibule and its lining vibrissæ are always teeming with micro-organisms. They have further observed that inspired air after passing through the nose is practically sterile. The importance of these investigations in emphasizing the great necessity of proper nasal respiration in reducing the chances of infection to a minimum cannot be over-estimated. This point has already been insisted upon by Dr. Sequeira in a paper read before the Hunterian Society. In that paper the writer referred to the fact that in diphtheria eighty per cent. of cases occur between the ages of two and fourteen years, a period during which enlarged tonsils and adenoids are most prevalent, whilst only three per cent. occur after the age of thirty.

A Case of Pregnancy Complicated with a Parovarian Cyst Simulating Extra-Uterine Fœtation.

Torgood (London Lancet) reports a case of a married woman aged twenty-six years, who had not previously been pregnant, was admitted to hospital on Feb., 15th, last complaining of abdominal pain. She brought with her a letter from the obstetric physician of one of the large London hospitals stating that he considered her case to be one of extra-uterine fœtation. She regarded herself as being four months pregnant, but stated that there had been some slight discharge at each of the missed periods There was constant abdominal pain which had increased in severity during the last month. On examination the left part of the lower abdomen was found to be occupied by a soft elastic tumour reaching almost to the level of the unbilicus, which yielded no sounds whatever when examined by the stethoscope and phonendoscope. Per vaginam a rounded elastic swelling occupied the whole of the pouch of Douglas, while the cervix, which was pushed forwards and upwards, was firm, and the os, whilst rather large, was not patulous. It could not be demonstrated that the tumour felt through the abdominal walls was not the pregnant uterus or that there was any connexion between the above tumour and that felt in the pouch of Douglas. The patient was, however, anxious for operation, and on the 20th the abdomen was opened in the middle line and there were found a pregnant uterus and a parovarian cyst about the size of a cocoanut which was incarcerated in the pelvis and was pushing up the lower segment of the uterus. The cyst was removed without difficulty, the pedicle being transfixed and tied with silk and dropped back into the abdomen. The recovery was uninterrupted; she did not abort. The deep stitches were removed on the ninth day and the superficial on the fourteenth day. She got up on the twenty-eighth day, and, having been supplied with a belt, left on the thirty-fifth day, announcing her intention of returning there to be confined.

Arthritis in Croupous Pneumonia.

Vogelius draws attention to this somewhat uncommon complication of croupous pneumonia, and gives the history of two cases under his own observation. The first, a workman, aged 38, suffering from an ordinary croupous pneumonia, complained on the fifth day of pain about the middle of the right clavicle, followed by swelling, redness, and fluctuation at the right sternal clavicular articulation. On exploration the joint was found to contain sero purulent fluid and yellow membranous flakes, and it was found that the sternal end of the clavicle was disorganised. Bacteriological examination of the fluid showed it to contain large numbers of diplococci. The second case was that of a painter, aged 60, the subject of pneumonia, which was followed by a left empyema, with painful swelling of one hip-joint. This was also found to contain pus, and gave the same result on examination—large numbers of diplococci, apparently identical with the Fraenkel diplococcus. The author points out that suppurative arthritis is a rare complication of croupous pneumonia, but at the same time expresses the opinion that it may occur more frequently than is supposed, being looked upon as a rheumatic affection having no relation to the principal disease. Future bacteriological observations may probably

result in the demonstration of the interdependence of the two conditions. These articular affections may declare themselves at different periods of the disease; sometimes when the fever attains its highest point, at others after the crisis. In one case it supervened before the beginning of the pneumonia, when the not unnatural diagnosis of acute articular rheumatism was made. In general only one joint is affected, and apparently those of the upper extremity are most liable. The synovial membrane is greatly injected, but the cartilages and bones are rarely affected, even when there is marked suppuration. The surrounding muscles are infiltrated and greyish yellow in colour, and large numbers of diplococci may be found in them. The effusion into the joint varies from serous to thick pus. Naturally this complication renders the prognosis graver, but in case of recovery from the pneumonia the prognosis so far as the joint is concerned is good.

Rheumatism.

Churton recently analysed 135 cases with the result that he believes that chills only aid the attack of micro-organisms, and are not the sole cause of the disease, and that chorea is a form of rheumatism. Another symptom in childhood is often an affection of the cervical vertebræ, sometimes leading to anchylosis. This to be distinguished from simple torticollis and caries. Haig, again, argues that uric acid retention is the cause of reumatism, and that drugs are useful just in proportion to their power of eliminating it. Heat dissolves it in the blood and cold precipitates it in the joints. Beverley Robinson, accepting the miasmatic theory as the best brought forward, regards the excess of lactic acid as a consequence, not a cause, of the disease, and thinks the addition of an alkali to other medicine desirable for its elimination. He objects to excessive doses of salicylates, and finds better results from combining with a little colchicum. With great success, too, he has employed acetate of potash and chloride of ammonium in ten or fifteen grain doses of each every two hours. L. F. Bishop, in summing up the evidence for the various theories, confesses that it is on the whole in favour of a miasmatic origin, and one rather like that of malaria than a bacterium. Though the production of endocarditis by Richardson's injection of lactic acid, and the appearance of rheumatism after the administration of latic acid in diabetes have some weight, he would regard the excess of lactic rater as the secretion of some microbe. Probably several diseases are included under the same designation. If alkalies are given for the sake of preventing heart complications he would order drachm doses of bicarbonate of soda often enough to render the urine alkaline. Salophen (which has been found very serviceable in sciatica and similar affections by the writer) is recommended by H. S. Pearse for acute rheumatism. It has no irritating effect on the stomach, being only decomposed in the intestine. He found the fever disappeared more quickly than under salicylates, and that there were few or no renal or cerebral complication or depression from its use.

Bourget for two years has treated all acute rheumatic cases by external applications only. He employs an ointment to the joints without friction, consisting of salicylic acid and turpentine, of each half an ounce. lanolin and lard, of each four ounces. This caused a rapid fall of tem-

perature and pain without the accidents which occur with internal medication. Salacetol is also recommended by an Italian author, and saligenin, the active principle of salicin, by Lederer. He claims that its action is rapid and certain, and without the unpleasant consequences of salicylic acid. It may be given as a powder, in doses of seven to fifteen grains every two hours. Linossier and Lannois find that salicylate of methyl is readily absorbed by the skin. The liquid is painted on a limb and covered by oiled silk and cotton wool. Sixty grains applied in this manner will cause the excretion of twenty grains of salicylic acid in the urine in twenty-four hours, without disturbing the digestion or irritating the skin.

Intubation.

Trumpp mentions that there is still some doubt as to the best method of taking out the tube after intubation, whether by means of a piece of attached thread or by the extractor. There are disadvantages attending the thread method, and especially because the fixing of the tube thus produced does not allow of its free play, and hence causes a liability to erosion of the parts. The use of the extractor, on the other hand, is hardly possible in private practice, as a sudden stoppage of the tube by membrane might lead to a danger of suffocation without the tube being able to be withdrawn at once. The use of the extractor may also require considerable skill, especially where a small tube sinks deeply into the larynx. In a case where attempts at extraction caused a small tube thus to sink further down, the author adopted the following device: Pressure with the thumb was made on the trachea, just below the cricoid cartilage, where the end of the tube could be felt; the cough thus produced forced the tube out. The author has found that this method of expression never failed in the cases in which he subsequently tried it. The pressure may be made with both thumbs, the fingers finding support on the neck; the pressure should be made inwards and directly upwards. If a more powerful pressure is exerted the tube may not only be forced into the mouth, but even completely out of it. The author has never seen any disadvantages attending this method. Of course the pressure should be made intelligently and not in too forcible a manner.

Beards and Bacteria.

The bacteriology of the beard has not yet, so far as we are aware, says the "British Medical Journal," been exhaustively studied; this might be a new world for one of our young Alexanders of pathology to conquer. That it is possible that disease can be carried in the manner suggested will hardly be denied, but we cannot say that we think the danger so great that doctors need sacrifice their beards on the alter of hygiene. Most will think even the careful sterilisation of the beard on leaving a sick-room a counsel of perfection. If the scrupulous hygienist thinks such a precaution necessary, he should be consistent, and insist on doctors shaving their heads, and even their eyebrows. How would our professional sisters like this? To live in the odour of antiseptic sanctity we should, after due purification, clothe ourselves in cotton wool, wrap our heads in sterilised gauze, and go about like veiled prophets of Khorassan.

The Causes of Death in Pneumonia.

Dr. Bollinger maintains that croupous pneumonia is a typical local infectious disease, pursuing in the majority of cases a very regular course. It is not dangerous on account of the duration or the intensity of the fever. The impairment of the function of the lung is likewise insufficient to explain death. The œdema so frequently found in the parts of the lung spared by the disease is not the result of a passively increasing collateral hyperæmia, but of cardiac failure. The collapse symptoms in croupous pneumonia and the fatal weakening of the heart are dependent on oligæmia, which leads to impaired nutrition of the cardiac muscle, already weakened by the fever and the extra demands upon it. Anæmia of the brain may cause disturbances of innervation of the heart, and this may be an additional factor. The exudate into the lung tissue may be likened to the venesection produced by the pneumococcus, which in a few days deprives the blood of a large quantity of important constituents. The reason why death takes place so early, and usually in the same stage of the disease, from the sixth to the eighth day (corresponding to the transition from red to grey hepatisation), is probably because the exudate has to attain a certain acme before life is imperilled. If these facts are applied to therapeusis, it follows that, in addition to the usual treatment of pneumonia, every effort should be made to combat the oligæmia. Large quantities of fluids should be supplied to the system through every available channel, even in the form of saline infusions. This should be done at an early pariod, before collapse symptoms have manifested themselves.

Tobacco and the Eyesight.

During the last fifty years it has become recognised that immoderate smoking causes a definite disease of the eye; and many cases in which a complete loss of sight has occurred, and which formerly were regarded as hopeless, are now known to be curable by making the patient abstain from tobacco. These patients almost invariably at first have "colour blindness"—that is to say, they take red to be brown or black, and green they believe to be light blue or orange. In nearly every case, the pupils are much contracted, in some cases to such an extreme extent that the patient is not able to move about without assistance. One such man admitted that he had usually smoked from twenty to thirty cigars a day. (Nursing Record). He consented to give up smoking altogether, and his sight was fully restored in three and a-half months. It has been found that chewing is much worse than smoking in its effect upon the eyesight, probably for the simple reason that more of the poison is thereby absorbed. The condition found in the eye in the early stages is that of extreme congestion only; but this, unless remedied at once, leads to gradually increasing disease of the optic nerve, and then, of course, blindness is absolute and beyond remedy. It is therefore evident that, to be of any value, the treatment of disease of the eye due to excessive smoking must be immediate, or it will probably be useless.

The population of the world averages 109 women to every 100 men. Eight-ninths of the sudden deaths are those of males.

A Theory of the Ultimate Etiology of Deformity, and its Practical Application.

Dr. Doyal Whitman, in a paper on this subject at the American Orthopedic Association May 21, called attention to the well-known facts that the erect posture was one comparatively recently acquired, and that in the process of evolution and adaptation, those structures whose function had been lost, were subject to degeneration and disease, and those functions most recently acquired were most susceptible to weakness and injury. The erect attitude was difficult of acquirement, as shown in the effort of the infant to stand; it was also an attitude difficult to maintain against the force of gravity, and especially so if the structure of the body was in any way weakened. The ordinary so-called postural deformities were then explained. The flexion and contraction deformities were, however, of special interest to the orthopedic surgeon. None of the theories that had bean advanced to explain this universal flexion was satisfactory, but if one accepted the morphological standpoint, it would be evident that as the erect posture was a newly acquired attitude, so also the uses of the limbs proper to that posture were newly acquired. Complete extension of the limb in the support of this posture required not only the greatest expediture of nervous energy, but also the greatest strain upon the joint-surfaces, and when the ability to assume this attitude became impaired, the affected member became flexed—in other words, it involuntarialy assumed an attitude common to the lower or quadripedal form of locomotion. Flexion, whether as the result of painful joint disease, or in hemiplegic deformity, was usually an evidence of unbalanced nervous influence and of preponderance of power of its lower or reflex centers. In joint-disease, the cause was local irritation and consequent muscular spasm; in the second, the inhibitory influence of the higher center was impaired or removed. The erect posture was an evidence of the higher position of man in the scale of evolution; a position due solely to the greater development of the higher centers of the brain. When the stimulation and controlling force of the higher center was directly or indirectly impaired, the more difficult and newly acquired attitudes were disused. and the affected part fell backward toward the type from which it had been differentiated.

The Malarial Parasite.

Laveran (The Practitioner) has examined patients suffering from fever contracted in Tonquin, Dahomey, Senegal, and Madagascar, and has found the organism described by him in 1880. He does not believe that the malignant fevers of tropical countries are caused by a special parasite. In some places the organism is much more virulent than in temperate climates, owing to its surroundings; in the same way tropical plants do not thrive when removed to temperate countries. Although he found numerous amœboid bodies, which were larger than usual (a condition very favourable to pernicious complications), in the blood of patients, he never met with the varieties described by some authors as peculiar to tertian, quartan, and irregular types. The morphological unity of the parasite in all countries is a good argument in favour of the unity of malaria in general. This is also supported by the clinical facts.

Calomel in Diphtheria.

Dr. Edwin Rosenthal (Phil. Co. Med. Society) said that before the advent of the antitoxin, he had always considered mercury a specific for diphtheria. As early as 1885, he had given calomel in diphtheria. In laryngeal diphtheria he has given as high as five grains every hour—in fact he has given as high as 120 grains to a child five years of age, in twenty-four hours; nor did he notice that the child showed any evidence of the physiologic action of the calomel. He was led to believe that to ptyalise a child who suffered from diphtheria was an impossibility, and he not only gave such enormous doses of calomel to these children, but he has used at the same time corrosive sublimate in enormous quantities, introduced 1-500 solutions into the child's nostrils, and swabbing out the fauces, in that way probably getting into the body of the child about a grain of corrosive sublimate inside of twenty-four hours.

In the case of a woman exceedingly ill with laryngeal diphtheria, the throat was swabbed out with 1-500 solution at intervals of from one to three hours, and in this way probably a gill of mercuric chloride passed into the stomach; yet there was no evidence to show that the drug had any deleterious effect.

The insufflation of calomel brings up a very good point. In cases intubated and given calomel, the withdrawn tube was found encrusted with a substance which was probably either calomel or some modification of calomel. Dr. Rosenthal did not think it proper to wake a child every fifteen minutes to administer medicine, but that as much as possible should be given if the child shows any tendency to wakefulness. To give any remedy at too frequent intervals will endanger life and open the way to many complications. Dr. Rosenthal also spoke of the use of calomel by sublimation rigging up a tent and burning calomel on a platinum pan and having child inhale the vapor. Two cases in which he had used sublimation died, but he has employed it in others with better success, the children recovering. From a fortieth to a sixthieth of a grain of calomel does not seem to be a very large dose, but when given every fifteen minutes, the child will be found to be taking a large amount without producing ptyalism. Whether or not the drug acts in the nose as a germicide through some chemic change, produced by the secretions, is something yet to be found out.

The Relation of Gastric Acidity to Acidity of the Urine.

Drs. Mathien and Treheux have come to the following conclusions in reference to the connections between gastric acidity and urinary acidity:

1. There is a connection between the acidity of the gastric juice and the acidity of the urine.

2. The more acid there is produced in the stomach, whether by secretion or by alimentary fermentation, especially gastric fermentation, the greater the proportion and the quantities of acid eliminated by the urine during the period of digestion.

3. In the normal state the acidity of the urine is notably lowered during the three to five hours following the ingestion of food. After that it rises. The lowering of the acidity may be preceded by a slight increase

during the first hour, as if a certain vuantity of acid were immediately hurried away by the wave of ingested liquid and rapidly eliminated.

4. In most cases there is an almost absolute parallelism between the curves representing the relative acidity and the absolute quantity of acid excreted. This parallelism is, however, destroyed when there is a certain degree of polyuria following a meal. The curve of relative acidity then rises while that of absolute acidity is lowered.

5. When a considerable quantity of the acid of secretion is removed from the stomach, either by vomiting, or by lavage, there is produced a marked lowering of the acidity of the urine, which may, under these conditions, even become alkaline.

6. The mean quantity of acid eliminated per hour is higher in *hyper*-chlorhydrics than in *hypo*chlorhydrics.

7. The ingestion of milk causes a notable increase in the quantity of acid excreted in the urine. This is doubtless due to the fact that milk rapidly produces a large quantity of lactic acid in the stomach and that this acid is swept to the kidneys by the increased diuresis, produced by the ingestion of liquid.

8. Milk should be excluded from the test-meals used in researches upon this subject. The meals should be the same for all patients.

9. The patients under observation should be submitted to a regimen for a sufficiently long time. The ingestion of beer, for example, in the evening, will notably increase the acidity of the urine during the following day.

Infantile Constipation.

According to Marfan, a nursling should have two to four stools a day during the first two months and one to two after the first year. Whenever they are less frequent constipation is present. Transient or habitual constipation may be due to any of the following causes:—Retained meconium, intestinal stricture, anal atresia. Symptomatic contipation is the result of febrile conditions or cerebral disorders; alimentary constipation, of simple or sterilized cow's milk, excess of casein or mineral waters, deficient sugar or fat; congenital constipation, of intestinal occlusion, excess of length or folds of the large bowel. The consequences of constipation in infants are numerous—rectal prolapse, umbilical hernia, invagination of the bowel, convulsions, prurigo, urticaria, eczema, anal fissure, mucous, serous or ulcerative colitis. In discussing treatment, Marfan gives a very excellent rule—no laxatives before three months, no purgatives during the first year. Alimentary constipation of nurslings should be treated thus:—A little sugar water (Jacobi), cow's milk four parts to 100 of sugar water; rectal lavage by the urethral catheter—two tablespoonfuls of glycerine to one litre of water or two tablespoonfuls of oil with the yolk of an egg to sixty grammes of water; massage, electricity. For fissure, suppositories.

The youngest member of the French Academy of Medicine is Dr. Raphael Blanchard, aged thirty nine years. He is regarded as an authority on the parasitic diseases of man, and is now engaged upon an important zoological work.

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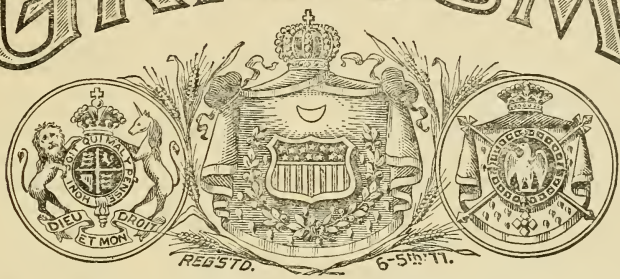

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The Diagnosis and Treatment of Ureteritis in Women.

Dr. Edward P. Reynolds, of Boston, presented a paper on this subject at the American Gynecological Society, May 28. He said that the two most characteristic symptoms of ureteritis were: (1) Frequent micturition, increased by the erect posture; and (2) a bearing-down pain, increased on standing, but usually completely relieved by a few hours' rest in bed. Vaginal examination elicited tenderness and a desire to urinate on making pressure over the vaginal portion of the ureter. Cystoscopic examination would usually show gaping or redness and swelling of the ureteral orifice or of the adjacent mucous membrane. In eight cases of ureteritis in which he had catheterized both ureters it had been found that the percentage of urea was in every instance decreased in the urine obtained from the diseased side. Where the ureteral orifice and adjacent vesical mucous membrane were inflamed, relief would usually follow the strictly localized application of solid nitrate of silver. The patient should be made to drink three or four pints of water, should avoid asparagus and strawberries, and should partake sparingly of other fruits and the highly flavored vegetables. Since discovering the deficiency in urea excretion, he had tried the administration of small doses of iodide of potassium and mercury, and had been greatly pleased with the result in cases of ureteritis. This condition, he thought, was often mistaken for renal colic or for acute catarrhal salpingitis. At the begining of the attack there would be renal tenderness on deep pressure, and later on there would be tenderness located at McBurney's point. Still later a new spot of tenderness would be found at a point about one inch above Poupart's ligament.

Tuberculosis of the Female Genital Organs.

Albert V. Veer (American Surgical Society, May 28th). Tuberculosis of the female pelvic viscera is not limited to any age, the extreme limits being ten weeks and eighty-three years. External genital lesions may be confounded with tuberculosis. Heredity is important as suggesting tuberculous possibilities. Tuberculosis is extremely rare in the external genitals, but by no means infrequent in the uterus. Tuberculosis of the uterus can be demonstrated by microscopical examination of the discharges and by curetting. Gonorrhœal infection is often grafted upon tuberculosis. Sometimes infection takes place through the fingers or the instrument or the semen. Tuberculosis originates in the tubes and infects the uterus and cervix. The uterus can be infected from without or within and the infection is aided by a laeerated cervix, pelvic peritonitis, trauma, etc. The symptoms are local irritation, a pea sized wart near the vaginal outlet, a discharge from the uterus, etc. The differentiation between the ulcers of syphilis and epitheliomas depends on age, history, local appearances, etc. Tuberculosis of the cervix can be mistaken for cancer. Many vaginal cases are infected from the tubes, and tuberculous peritonitis may infect the vagina and the tubes. The author mentioned several cases illustrative of the points referred to.

With regard to tuberculosis of the kidney, there may be two forms, (1) miliary tuberculosis and (2) caseous or true tuberculosis. The author gave the details of one or two cases and referred at some length to Kelly's nephro-ureterectomy.

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The Differential Diagnosis of Neurasthenia and its Treatment.

This was the title of a paper read by Dr. Pettyjohn of Alma, Mich., at the Pennsylvania State Medical Society, May 21, in which he said that ever since Beard used the term neurasthenia, and Van Dusen directed attention to a group of symptoms so named, the profession had been struggling to map out a definite set of symptoms to be thus classified and in his opinion we had as yet but poorly succeeded. Althaus, of London, protests against the term and Gowers says that nervousness covers the conditions. Different writers give different illy defined symptoms and subdivide them into cerebral and spinal symytoms, some observers even finding varied local conditions which they characterize as neurasthenia. There is one thing upon which authors are agreed; namely, that this group of sym ptoms indicates disease of some part or every part of the nervous system; that there is a marked defect in the nutrition of the cerebro-spinal axis, giving an almost endless varity of symptoms difficult to classifiy. The changes noted in the patient come on gradually. These changes were described and which occur in cases of neurasthenia. The author believes that neurastheuia as a distinct disease does not exist. It was simply a popular term among the laity, and many a young woman has become useless in the world of action because she thought she had neurasthenia. Physicians were to some extent to blame for encouraging this popular delusion.

Under the head of treatment the author expatiated upon elimination, food and environment. A systematic course of hydrotherapeutic treatment in addition to medication was essential to the best results, particularly with reference to elimination through the skin. Recumbent rest and active exercese he prescribes in frequent alternations for every day with methodical regularity. For stimulation of the nerve centers a hot fomentation of the entire spine, or the alternation of the fomentation and ice to this entire region produces admirable results. The patient's environment should be pleasant, agreeable and often unhomelike.

Chronic Constipation in Infants.

Emmett Holt is of opinion that the constipation so often observed in children fed artificially is commonly due to a deficiency of fat in the food. (Pediatrics). By far the largest single ingredient in the stools of the healthy infant is fat, and this, he argues, is evidence that the food of an infant should contain more fat than is required for nutrition, the use of the excess being to keep the bowels in action. Human milk contains a larger percentage of fat than cow's milk, and when the latter is given diluted the disproportion in the percentage of milk is still further increased. By raising the percentage of fat in artificial food to 4 or 5 per cent. Holt states that constipation will be rendered a rare occurrence. Neither cane nor milk sugar has much, if any, effect in preventing constipation, while malted foods have a certain influence, due, probably, to the laxative action of the maltose. Yale points out that gentle massage of the abdomen relieves constipation in some cases; the massage is made along the course of the large intestine from the cæcum to the sigmoid. In cases in which the constipation is associated with large hard stools it has been found very effectual.

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Tincture of Digitalis.

Digitalis is a drug that has no ancient history. It was used in the sixteenth century as an application to wounds, a vulnerary, and in the middle of the seventeenth century Culpepep writes that "it has been used by the Italians as a dressing for recent wounds and old sores, that it is recommended as a purgative, emetic, and deobstruent, and that it is benefinial in scrofula and scalded head, and that it has been found of late to cure divers of the falling sickness that have been troubled with it above twenty years." It was introduced into the London Pharmacopœia in 1721 and again omitted in that of 1746. (Lancet.) It had been a popular remedy for some time in several parts of England for dropsy, and in 1775 was established as a good remedy for this condition by Witeering, so that in 1788 it became a recognised article again in the Pharmacopœia. From this time it has been largely used in clinical medicine, but the more exact study of the drug dates from the middle of the present century. The investigation of its physiological action shows that in animals small doses increases the contraction of the heart, while in large doses the heart becomes irregular and finally stops in a condition of contraction. It appears to stimulate the cardiac and vaso-moto nervous system, as well as to increase the force of muscular contraction.

In man it first produces slowing of the pulse with a rise of blood pressure, regulating the heart's action and strengthening it. This sedative and regulating action upon the heart caused Bouiliaud to designate it "the opium of the heart." With larger doses the pulse becomes rapid and the pressure falls, and in toxic doses the pressure falls still more, the heart becomes slow, and more and more irregular until it finally stops beating.

Starvation and Antiseptics in Typhoid Fever.

Dr. H. S. McConnel read a paper at the Pennsylvania State Medical Society, May 21, with this title. He denied that typhoid fever is a self-limited disease. Its duration and gravity depend upon our ability to prevent and destroy the bacilli and restrict and eliminate the toxin. Eberth's bacillus being the cause, the point of attack the alimentary canal, three indications are to be met: 1, to prevent the introduction of any bacilli; 2, to destroy and expel all bacilli in the digestive tract; 3, to make and keep the intestinal canal aseptic. The first is done by permitting only sterilized substances; the second by active purgation; the third by intestinal antiseptics, prohibiting all and every kind of food for three days. After this, when there is unmistakable hunger, give food well diluted, at long intervals and in small quantities; half a teacupful of hot water every hour, and an enema of salt and cold water morning and evening. Keep temperature below 102, cold sponging, over this guiacol externally. He had thirty-four eases, with one death; duration eigthteen and three-tenths days. There were four relapses, one hemorrhage. One went seventeen days without food, another fifteen days, and thirty-two from seven to twelve days. He claimed this to be the rational treatment. It shortens the disease, temperature soon falling to normal line. There is very slight delirum, no illusions, less liability to hemorrhage or perforation. The patient is comfortable and in convalescence we have a stomach that is capable of digesting food.

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Calomel in Heart Disease.

Dr. Maldaresca (British Medical Journal) describes tee successful results he has obtained with calomel in heart troubles accompanied by distress in breathing, severe disturbances in the circulation, ascites, edema, albuminuria and hypertrophied heart and liver. He gives it in six powders with sugar, 0.10 gram every two hours during the day, for two or three days, following this with 0.10 to 0.10 gram a day for a few days, after when he then commences potassium iodid. Enormous ascites and edemas vanish with this treatment, and even patients in complete cyanosis are restored to comparative health. He ascribes the wonderful action of the calomel to its effect on the liver. It relieves the congestion, and thus restores the circulation in the important portal and liver veins, which exert a favorable influence on the entire circulation and cures some of the complications, while it relieves all. The gums are frequently affected by the calomel, and he orders a mouth wash from the first, consisting of potassium celorate 10.0, tannin 0.25, aq. dist. 350. He limits his patients to a milk diet during the treatment, and warns them afterward to refrain from alcohol and excessive exertion, and restrict themselves to a light diet, and persist in the use of potassium iodid. He has treated 107 cases. with five deaths of those that were *in ultimis*, and nine other deaths, all of elderly persons in advanced strges. He notes that the calomel has also the advantage that after it other remedies produce their best effect. He scouts the idea that calomel can form sublimrte in the alimentary canal, as a very elevated temperature is required for this.

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INDEX TO VOLUME VIII.

A Clinical Study of Injection of Iodoform-Glycerine in Tuberculous Osteomyelitis, by Henry M. Sherman, A. M., M. D..... 806
A Hundred Years of Vaccination.. . 780
Anterior Displacement of the Head of the Femur (Congenital)..... 797
A Case of Abscess of the Hip, Probably Tubercular, with an Unusual Complication, by Edwin M. Cox, M. D..... 760
Atrophy of the Liver..... 564
An Interesting Case of Chronic Spasms. 557
A Doctor's Carbuncle 531
About the Diagnosis and Prognosis of Albuminuria in Pregnant Women, by Dr. E. M. Dupaguier..... 479
A Test of Zumo-Anana and Other Things..... 703
Antiseptics in Purulent Conjunctivitis. 483
Amaurosis Partialis Fugax..... 559
Artificial Delivery after Maternal Death 651
Acetonuria and Coma..... 676
Annual Meeting of the N. C. Medical Society..... 673
A Fœtus Stabbed..... 694
Antiseptics... 671
A Department of Health, or a Bureau; Which? A paper on the above subject, by Dr. S. S. Herrick, of San Francisco..... 692
A Method of Preventing Thirst after Celiotomy, with a Study of the Urine. 679
Abortion; Perforation or Abscess of Uterus?..... 388
A Report of 12 Cases of Organic and Functional Gastric Derangement.... 213
Analgesia and Sedation, an Essential Adjunct to Treatment, by John J. Sullivan, M. D..... 211
A New Operation for Congenital Ptosis. 208
A Most Persistent Case of Vomiting in Pregnancy Controlled by a Simple Stimulant Tonic, by W. R. Endris, M. D..... 201
Alcohol in the Therapeutics of Pneumonia..... 183
An Address Delivered Before the Italian American Academy of Medicine, December 7th, 1895, by J. Mount Bleyer, M. D., F. R. A. M. S..... 164
A Few Thoughts Regarding the Treatment of Phthisis, by E. C. Register, M. D..... 161
"An Explanation Concerning the Preliminary Communication on Citrophen," by Dr. R. Seifert..... 232
Animal Therapeutics in the Treatment of Cerebral Hyperæmia, by William A. Hammond, M. D..... 156
Alkaloidal Dosimetric Medication, by W. L. Coleman, M. D..... 238
Anthrax Antitoxin..... . . 255
Abortion; Perforation or Abscess of Uterus?..... 388
A Tooth Growing in the Nose, by George W. Graham, M. D..... 155
A Brief Resume of the Treatment of Appendicitis, by H. A. Royster, A. B., M. D..... 151
A New Remedy..... 87
Appendicitis..... 15
Acute and Subacute Diseases of the Upper Respiratory Tract, by G. B. Sweeney, M. D..... 38
A Few Crumbs About Typhoid Fever, by Dr. J. N. Baughman..... 99
A City Hospital for Charlotte 62
A Letter to the Editor..... 221
A Clinical Lecture at the Polyclinic Hospital—Chloasma, by J. Abbott Cantrell, M. D..... 218
Apolysin, A New Antipyretic and Analge, by Drs. L. V. Nencki and J. V. Jaworski..... 214
A New and Ideal Styptic; A New Compound of Antipyrine and Tannic Acid, by Roswell Park, A. M., M. D..... 197
A Contribution to the Therapeutics of Diabetes, by J. Blake White, M. D.. 203
Ammonol in Fevers, by John J. Sullivan, M. D..... 257
Apparent Cure of Phthisis, by Dr. Wm. Pepper..... 253
An Address Delivered Before the Italian-American Academy of Medicine, December 7th, 1895, by J. Mount Bleyer, M. D., F. R. A. M. S..... 297
Acne, by H. D Parsol, M. D..... 302
A Salubrious Climate..... 311
Antitoxin, Spermin and their Relation to Natural Chemism, by Dr- G. E. Kreiger..... 266
An Analysis of the Deaths in Detroit, Mich., Among Children Under Two Years Old, During June, July and August, 1894, and the Relation of Diet to this Mortality.... 264
A Simple Method of Plugging the Posterior Nares, by Dr. John T. Pitkin.. 261
A Card..... 264
A Means of Emptying the Bladder... 615
A Study of Homo-Medicus, by Charles McIntire, M. D..... ... 637
Alcohol in the Treatment of Disease... 637
A Few Notes on Organotheraphy with Special Reference to the usefulness of Thyroid Extract in the Treatment of Different Diseases, by H. H. Vinke, M. D..... 604
A Plea for a More Efficient Medical Law for Texas..... 402
Asthma 416

A Case of General Tuberculosis with Tubercular Meningitis, by Dr. Henry E. Tuley... 357
A Clinical Study of Antikamnia..... 363
Alumnol as a Surgical Application, by Dr. E. B. Smith..... 364
A Hard Case..... 407
A Case of Surgical Injury to the Ureter, by Dr. J. M. Baldy..... 422
A New Radical Cure for Hydrocele, by Baumgarten..... 372
Antitoxin Treatment of Diphtheria.... 491
A Strange Skin Affection..... 512
Aids in Colotomy..... 532
A Plea for Conservatism in Gynæcology 515
Anti-Typhoid Serum..... 535
Accommodation; Influenced by Genito-Urinary Irritability..... 487
An Electric Light Bath..... 455
Antiphthisin..... 527
Appendicitis..... 817
Apyrexial Typhoid Fever..... 822
Antistreptococcus Serum in Scarlet Fever 829
A Theory of the Ultimate Etiology of Deformity, and its Practical Application..... 848
Ammonol, by R. G. Eccles. M. D..... 833
A Standard of Physique for Doctors.. 841
Arsenic..... 843
Arthritis in Croupous Pneumonia.... 845

Bacillus of Chancroid..... 406
Bakeries and Diseases..... 555
Bronchiectasis, by Duret..... 369
Bicycles for Women..... 837
Beards and Bacteria..... 846

Cystic Degeneration of Kidneys following Abortion 406
Castration for Hypertrophy of the Prostate, by Rovsing..... 295
Color-Music: Another Sense..... 63
Chronic Dry Nasal Catarrh..... 260
Chronic Gastric Dyspepsia, by K. S. Howlett..... 544
Croup..... 540
Consumption Among the Colored Population of the Southern States..... 542
Cholera Infantum, by J. M. Duncan, M. D..... 525
Changes in the Spinal Cord following Amputation, by Alfred W. Campbell 552
Guaiacol in Diseases of the Bladder... 560
Curetting in Infected States of the Appendages..... 534
Causes of Death in Pneumonia..... 530
Coffee Intoxication..... 533
Citric Acid in Gonorhœa..... 663
Chronic Gout..... 682
Chronic Heart Disease..... 685
Cystic Disease of Both Breasts..... 399
Congenital Luxation of the Hip, by Brodhurst..... 392
Congenital Dislocation of the Hip, with Report of a Case Cured, by Dr. Halsted Myers..... 225
Contracted Meati, Their Causes, Reflexes and Treatment, by M. E. Van Meter, M. D..... 593
Cleanliness During Menstruation..... 335
Congenital Hydrocephalus, by J. Z. Currie, A. A., M. D..... 305
Changes in the Nervous System in Diphtheria..... 255
"Carbuncle," by Dr. C. A. Gray..... 226
Creosote Carbonate in the Treatment of Pulmonary Tuberculosis, by Wm. H. Bukeman, M. D..... 241
Can Old Age be Postponed?..... 174
Can Infants Digest Starchy Food? 173
Chronic Seminal Vesiculitis with Hemorrhage, by Dr. S. P. Collings.. 198
Cerebral Syphilis, by Dr. F. D. Ballard. 135
Congenital Syphilis of the Liver in Infants, by K. Hochsinger..... 675
Chronic Inflammation of the Uretha Complicated by Old Stricture, by Arthur Aulad, M. D., M.B., B. Ch., B. A. O., B. A..... 667
Cycling for Women..... 812
Constipation..... 836
Calomel in Diphtheria..... 849
Calomel in Heart Disease..... 869
Cerebral Exercise 841

Diseases of Pelvic Organs, by Dr. C. A. Kerkley..... 415
Diphtheria; Diagnosis, Prognosis and Treatment, by Everett D. Peek, M. D. 599
Diathesis and Disease..... 394
Diphtheria Antitoxin..... 181
Dr. Barringer's Lecture..... 64
Dr. R. L. Payne goes to Norfolk, Va.. 65
Diabetes Mellites..... 691
Danger in the Prick of a Black Thorn. 694
Diet in Diseases of the Skin 530
Dyspepsia Cases from Practice..... 521
Decayed Teeth and Puerperal Fever.. 553
Diabetes Mellitus..... 555
Dysentery..... 808
Digestive Disorders of Children..... 823
Disinfection of Sputa..... 813
Diagnosis of Porencephalus..... 829
Douches in Gynecological Practice... 828

Eclampsia, by Dr. Tweedy..... 401
Etiology of Puerperal Eclampsia..... 194
Electrolysis for the Surgical Treatment of Strictures, by J. A. Fort, M. D.... 216
Eye Diseases of Dental Origin..... 88
Ectopic Gestation, by L. Grant Baldwin 54
Eucaine, a New Local Anæsthetic, by H. Kiesel..... 654
Epilepsy..... 696
Echinococcus of the Fallopian Tubes.. 695
"Etiological Factors in Relation to Different Forms of Chronic Bright's Disease"..... 536
Excision of a Portion of the Liver for Tumor..... 553
European Endorsements..... 797
Evolution vs. Special Creation, by P. Daugherty, M. D..... 756
Experimental Reports with Gude's Peptomangan..... 810
Epiphysites of Infants..... 820
Electricity in the Treatment of Rheumatoid Arthritis..... 831
Exercise..... 868

Functional Albuminuria..... 360

Food for Young Children..... 67
Fake Devices for Restoring Impaired Hearing..... 58
Facial Diagnosis..... 176
Filaria of the Eye with Specimen..... 171
Fever Nursing and the Nursing of Contagious Diseases..... 501
First Sign of Consumption, by Dr. C. W. Ingraham..... 560
Faial Rupture of Vagina During Labour..... 838
Forceps for the After-Coming Head.. 869

Gout—Its Cause..... 362
General Practitioners and Specialists, recent address by Dr. Onslow Allen, of Brooklyn..... 714
Gant's Femoral Osteotomy for Correction of Hip Deformity in Adults, with Report of Cases..... 647
Gauze as Drainage in Abdominal and Pelvic Work, by Milo B. Ward, M. D. 690
Gin Accidents and Their Treatment by the General Practitioner, by P. F. Ellis..... 328
General Care of Infant from Birth to Childhood, by H. D. Fuller, M. D... 770

Headache..... 410
Heredity in Disease..... 399
Hysteria and Ooporectomy, by Pamard 359
Heart Disease..... 378
Hysteria in Children, by Dr. J. N. Upshur..... 387
How to Keep Well..... 660
Hygiene vs. Drugs, by C. F. Ulrich, A. M..... 674
Hydrobromate of Hyoscine..... 614
How to Treat a Cough..... 92
Hobbies..... 623
Hygiene and Therapeutics..... 60
Hydrozone in Purulent Otitis Media.. 550
Harvard Medical School..... 489
"Heredity" as a Defence to an Action for Breach of Promise..... 485
Hypertrophy of the Pharyngeal Tonsil, by S. K. Merrick, M D..... 467
Hydrotherapy in Pulmonary Phthisis. 807
Hepatic Abscesses..... 832

Is Inherited Syphilis Contagious..... 803
Introduction of Vaccination in the United States..... 781
Infection with Tubercle Through the Genital Organs..... 424
Intravenous Injections of Mercury in Syphilis, by Dinkler..... 404
Insomnia in Gastro Intestinal Disorders 403
Intra-Articular Injections of Iodoform Emulsion for Tubercular Joints, by Alex. Hugh Ferguson, M. D..... 373
Insanity in the South, by J. T. Searcy, M. D..... 635
Infiltrative Anæsthesia in Surgery.... 340
Insist on a Fair Fee..... 338
Indications for and Against Operating for Strabismus, by Dr. Frank C. Todd 209
Influence of Climatic Conditions and Weather Changes on the Functions of the Skin..... 640
Infection in Inherited Syphilis..... 650
Illinois Central Hospital for the Insane 662
"Infective and Tubercular Osteitis as Causes of Arthritis in Childhood"... 540
Infiltration Anæsthesia..... 710
Intra-Abdominal Shortening of the Round Ligaments, by Jacob Frank, M. D..... 513
Intubation..... 846

Journal of Experimental Medicine.... 488

Lacerated Wound of the Eye.ball.... 601
Laparotomy and Intestinal Suture for Perforating Ulcer During Typhoid Fever..... 557
Lupus Vulgaris, by Chas. G. Geiger, M. D..... 607
Longevity Influenced by Water..... 626
Living Greek in our Schools..... 382
Liver Complaint..... 410
Laparotomy in Tuberculous Peritonitis 553
Local Action of Salol..... 670
Liquor Arsenicalis..... 785
Lachrymal Obstruction..... 823
Location of Cancer of Breaste..... 842

Multiple Neuritis, by Dr. George M. Hammond..... 535
Measles..... 270
Mind Cure..... 625
Model for an Epileptic Colony..... 638
Medical Men and the Peerage..... 591
Meeting of the North Carolina Medical Association..... 340
Morphinism in the Young, by Dr. J. B. Mattison..... 229
Measles Throughout the Country... . 64
Massage for Ear Disease, by Dr. Louis J. Lautenbach..... 89
Medical Journals and Their Advertisers 59
Medicated Kefir, by Dr. M. O. Lanzer. 234
Medical Education..... 556
Micro-organisms and Digestions..... 679
Mental Symptoms in Bodily Disease.. 702
Mastoid Abscess Complicated with Lateral Sinus Thrombosis and Diabetes; Operation; Recovery..... 649
Mercury in Tubercular Diseases..... 685
Mouth Hygiene..... 686
Measures to Prevent Physicians from Contracting Contagious Diseases.... 809
Malaria Not an Accidental But an Optional Parasitism..... 819
Milk in the Treatment of Bright's Disease..... 824

Not in the Text Books..... 49
Notes on Senn's Clinic..... 546
Neurasthenia Treatment..... 665
Norcotic Poisoning..... 687
Nasal Disease Associated with Epilepsy 554
Neuralgia Provoked by Carious Teeth Complicating Healing after Cataract Extraction..... 233
Nitro-Glycerine in the Treatment of Sciatica, by Dr. William C. Krauss.. 356
Neurosine..... 357
Non-Superative Ankolosis of Joints, by Anderson..... 370
Nasal Catarrh..... 223
Neurasthenia..... 532

No New School for Her..... 184
Norwood's Tinct. Veratrum Viride in the Treatment of Puerperal Convulsions..... 784

Obstetrical Superstitutions, by Dr. Thos. L. Bullock..... 415
Operation in Appendicitis..... 620
"On Apolysin and Citrophen with Remarks on the Practical Usefulness of the Phenetidan Derivatives," by Dr. H. Hildebrand..... 236
Operation in Chronic Glaucoma, by Dr. Nettleship..... 228
Origin of Malpractice Suits..... 624
Ophthalmia Neonatorum, by Dr. R. F. Miller..... 200
On the Deformities and Malformations Resulting from Acute Infections in Bone, by Dr. Roswell Park..... 83

Puerperal Fever, by W. E. Fitch, M. D. 312
Prognostic Significance of Albuminuric Retinitis..... 260
Pilocarpin in Influenza Pneumonia.... 106
Prostate Retention Treated with the Galvanic Current..... 820
Pruritus Cutaneus..... 84
Photography Through Solids..... 183
Puerperal Sepsis, by Dr. Frank T. Meriwether..... 763
Prolapsus Uteri..... 792
Primary Tuberculosis in Relation to the Middle Ear, by Edward J. Bernstein, M. D..... 752
Pressure Paralysis in Chloroform Narcosis, by Bruns..... 425
Pepsin in Gastric Diseases, by Oppler. 397
Pneumothorax in Typhoid from Straining, by Dr. White..... 408
Parturition..... 397
Problem of Work..... 405
Posterior Catheterism, by Kukula..... 426
Puerperal Eclampsia..... 396
Pretuberculous Albuminuria, by Teissier..... 386
Pneumonia..... 385
Physical versus Mental Overtraining in Children, by Dr. Aristides Agromonte 361
Professional Truth and Honesty..... 620
Placentitis Retained Placenta, by Dr. C. B Schoolfield..... 262
Professor Roentgen's Discovery..... 336
Pregnancy in Girlhood..... 240
Pneumatic Truss Pads..... 651
Prolonged Intrauterine Retention of an Ovum..... 645
Prevention of Infectious Diseases..... 641
Preventive Treatment of Inflamed Breasts..... 503
Pathology and Therapeutics of Rheumatism, by Dr. C. H. King..... 518
Professor Roentgen's Discovery in the Service of Surgery..... 488
Poisoning by Stale Eggs..... 502
"Practical Influences from Clinical Observations in Lateral Curvature of the Spine," by A. B. Judsen, M. D.. 680
Professional Courtesy, by J. B. Alexander, M. D..... 469
Pathology of Empyemia..... 492

Psoriasis..... 533
Prevention and Treatment of Pulmonary Tuberculosis, by Dr. Greenley.. 195
Plans for Delivery of Occiput-Posterior Positions..... 504
Pneumonotomy..... 678
Phenacetin in Typhoid Fever..... 832

Quantitative and Qualitative Infection, by A. H. Stewart, M. D..... 321

Retrospect of Disease as Witnessed by a Country Doctor, by J. B. Alexander, M. D..... 457
Remarks on Abdominal Ptosis, Viscero-Ptosis, Enteroptosis or Glenard's Disease, by Dr. Hugh M. Taylor.... 506
Relation of Medical Examining Boards to the State, to the Schools and to Each Other..... 646
Rickets..... 543
Review of the Results of the Author's Method of Anchoring the Kidney, by Dr. R. H. Reed..... 648
Rheumatic Fever..... 393
Roetgen's Discovery as Applied to Medicine..... 383
Retroversion of Uterus as a Complication in Abortion..... 623
Retro-Bulbar Neuritis, Neuro-Retinal Toxaemia from Excessive use of Alcohol, Tobacco, etc., or Lead Poison..... 178
Resolutions of Respect..... 361
Renal Disease..... 94
Rachitis, A Plea for Its Prevention and Early Recognition, by I. W. Faison, M. D..... 767
Roentgen's Skiagraphs of Club Feet; Deformity of the Hand; Tuberculosis of the Knee, etc..... 816
Rheumatism..... 845

Some Notes on the Treatment of Puerperal Mastitis..... 783
Special Regulations for the Second Pan-American Medical Congress.... 795
Sanmetto in Urinary Diseases..... 661
Symptoms of Pneumothorax..... 672
State Medicine, by A. B. Tadlock, A. M., M. D..... 545
Stimulants, Are Preferred to Depressants, by Dr. W. F. Waugh..... 652
Scientific Temperance from a Medical Standpoint, by James W. Squires, M. D..... 461
Some Points in the Treatment of Pneumonia, by J. M. French, M. D..... 476
Stricture of the Rectum, by Geo. H. Derrick, M. D..... 465
Should Ocular Strabismus in Adults be More Frequently Corrected..... 523
Sugar in Normal Urine..... 557
Sequels of Diphtheria..... 548
Sequels of Influenza..... 537
Symphysiotomy..... 511
Serious Complications of Suppuration of the Middle Ear..... 683
Septic Peritonitis, by Lewis Schooler, M. D..... 520
Scarlet Fever, by Dr. O. C. Omohundro 524

Serum Therapy..... 684
Special Free Distribution..... 542
Sexual Neuræsthenia..... 368
Sources of Opposition to Brandt's Treatment of Typhoid Fever..... 622
Skin Eruptions..... 640
Some Remarks on Chronic Aural Catarrh, by William Martin, M. D... 596
State Medicine in Pennsylvania, and How we may Increase its Efficiency, by Eugene O. Bardwell, A. M., M. D. 591
Student Societies in Medical Schools.. 636
State Board Medical Examiner... ... 342
Some Points in the Management of Child after Birth..... 334
Some Notes on Trachoma, by Dr. Matthias L. Foster... 222
Surgical Treatment of Epilepsy, by Dr. B Sachs..... .. 236
Serotherapy in Infection by Pyogenic Micro-organisms and Erysipelas, by Parascandolo..... 247
Sudden Death due to Spinal Puncture, by Furbringer..... 246
Some Misleading Medical Misnomers, by S V. Clevenger, M. D.... 137
Some of the Splendid Results Obtained by the Whitehead Operation, by Dr. A. Rhu..... 146
Slight Effects of Tenotomies of the Ocular Muscles, by Dr. George T. Stevens 212
Sanmetto 196
Sanmetto in Retention of Urine..... 358
Some Fractures and Epiphyseal Separations in Children, by Dr. John F. Erdmann..... 102
Sennine, The New American Antiseptic 217
Syphilitic Hæmatoma, by Dr. Hahn... 82
Shorthand Writing Among Doctors... 62
Suicides in Germany 415
Six Hundred ($600) Dollars in Prizes.. 98
Some Effects of Ammonol, Noted at Roosevelt Hospital, New York..... 91
Serum Therapy in Cancer..... 625
Surgery versus Electricity, by Edward Sanders, M. D..... 17
Surgical and Mechanical Treatment for the Relief of So-called Hopeless Cripples..... 816
Summer Diarrhœa..... 814
Successful Use of Protonuclein in a Case of Extreme Anæmia, by John Ferguson, M. A.; M. D..... 821
Soarvation and Antiseptics in Typhoid Fever..... 856

The Morphine Habit..... 658
The Guaiacol-Carbonate Treatment of Typhoid Fever, by Dr. S. Frankel... 642
The Balsam of Peru Treatment of Scabies 701
The Best Method to Teach Obstetrics.. 699
The Causes of Bronchitis..... 706
The Value of Experience in the Use of Drugs..... 781
The Role of Alcohol..... 778
The Treatment of Diarrhœa..... 777
The Danger of Operative Treatment of Enlarged Prostate... 774
The Treatment of Specific Urethtitis in the Male..... 804
The Future of Vaccination..... 779
The Young Man in Medicine, by Arthur D. Mansfield, M. D... 745
The Fatty Degeneration and Its Masquerades, by Ephriam Cutter, M. D., LL.D..... 97
The Treatment of Uterine Hæmorrhage During the last two Months of Pregnancy, by Dr. J. W. Smyly..... 93
The Coexisteuce or the Complication of Anal or Rectal Fistular with Phthisis Pulmonalis, by William Bodenhamer, M. D., LL.D..... 43
The Significance and Treatment of Blepharitis 99
The Curability of Sympathetic Eye Inflammations..... 94
The Effects of Diet on Cutaneous Disorders..... 66
Toxins and Antitoxins—The Modus Operandi of Modern Serum-Therapy, by Hugo Engel, A. M., M. D..... 24
The Importance of Starch as an Article of Human Food, by Sir William Roberts, M. D., F. R. S..... 503
The Chemistry of the Poison of Diphtheria 688
The Onslaught of Modern Surgery.... 700
Tubercular Disease of the Uterine Appendages and Peritoneum, by Dr. D. S. Fairchild..... 509
Tuberculosis in Parrots..... 517
The Trend of Modern Therapy..... 523
The Influence of Alcoholic Excess in Predisposing to Pulmonary Tubercle 545
The Vagina and Puerperal Infection.. 551
The Treatment of Diabetes..... . 556
The Third Stage of Labor..... 534
Treatment of Hemorrhoids... 519
The Expression of Ideation, by James Weir, Jr., M. D..... 470
The Christian Scientist..... 455
The Causes of Insanity..... 543
To Remove from the Hands the Odor Acquired in Making a Post-Mortem. 562
Transmission of Tubercle..... 687
The After Treatment of Operations upon the Rectum..... 541
The Antiseptic Action of Subnitrate of Bismuth..... 551
The Action of Electricity on the Healthy and Diseased Stomach..... 535
The Prophylaxis of Typhoid Fever, by Dr. John Eliot Woolbridge..... 712
Treatment of Gonorrhœa with Argonin, by Dr. A. Lewin..... 669
The Rapid Cure of Rotary-Lateral Curvature of the Spine..... 693
The Balance of Therapy, by Thomas Osmond Summers, M. A., M. D., F. S. Sc..... 699
The Necessity for the Early Recognition of Morbid Growths in the Mouth. 514
The Cigarette Heart..... 511
The Use of Gauze Drainage..... 664
The Scientific Treatment of Typhoid Fever 668
The Value of Cycling..... 668
The Diagnosis of Intracranial Growths, by Chas. K. Mills 562

The Second Pan-American Congress.. 663
The Vaginal Douche Before Labor.... 681
The Heart in Its Relation to Pregnancy, by Hanfield Jones 677
The Best Method of Teaching Anatomy, by John B, Roberts, A. M., M. D.... 705
The Use of Strawberries..... 677
The Digestion of Starch in the Stomach 661
The Doctrine of Undeveloped Herpes. 686
The Bacteria of Catgut and Its Sterilization, by N. Zajacskowski..... 426
The Hygiene of the Face.... 417
The Dangers of Cocaine..... 418
The Therapeutic Value of Benzosol, by J. Blake White, M. D..... 411
The Effects of Tobacco on the Eyesight. 407
The Action of Erysipelas on Syphilis, by Rudolph 404
The Serum Treatment of Puerperal Fever, by Gaulard..... 400
The Treatment of Acute Gout, by Jaccoud 395
The Dangers of Delay in Dealing with Pus in the Female Pelvis, by Dr. T. A. Ashby..... 391
Typhoid Fever, by Dr. F. J. Bowen.... 389
The Permanent Cure of Anteflexion by Operation, by Dr. Keith 384
The Treatment of Intestinal Obstruction following Laparotomy, by Adenot..... 388
Typhoid Fever in Childhood, by Dr. J. J. Morse 381
The Vaginal versus the Abdominal Route in the Treatment of Diseases of the Uterus and Adnexa, by Dr. W. R. Pryor..... 380
The Other Side, by Dr. T. P. Lockwood 379
To Reassure..... 431
Tuberculous Affections of the Heart, by Leyden..... 359
The American Microscopical Society.. 355
The Halcyon, Atlanta, Ga..... 624
The Surgical Treatment of Uterine Fibroids, by R. E. Haughton, A. B., M. D..... 609
The Practical Value of Rontgen's Photography ...., 621
The Surgical Treatment of Retro-Deviations of the Uterus, by Dr. Augustin H. Goelet 354
The Importance of Testing the Urine in all Cases..... 619
The Paris Exposition of 1900—The Medical Exhibit... 342
The Half has Never Been Told..... 339
Treatment of Eczema..... 337
The Missing Link 335
The Etiology of Malignant Tumours, by Roncali 249
The Diagnosis of Syphilis of the Nervous System in the Adult, by Dr. W. B. Pritchard 252
The Relative Importance of the Lungs and Heart in the Treatment of Acute Pneumonia, by Thomas J. Mays, A. M., M. D 142
Tuberculosis of the Female Genital Organs, by William Moser, M. D.... 149
The Need of More Hygiene in Rural Districts..... 65
To What Extent Should Recently Suggested Symptoms of Muscular Exercise Displace Tenotomy in the Treatment of Heterophoria, by Hiram Woods, M. D..... 207
The Abortive Treatment of Typhoid Fever 180
To Plug the Post Nares..... 199
The Charlotte Medical Journal..... 177
The Old and the New.. 61
The Battle of Clubs.... 57
The Alimentation of Infants by Means of Starchy Foods..... 55
Tendon Advancement and Tendon Retroplacement, by Dr. Charles Hermon Thomas 86
The Ideal and the Idle Specialist..... 333
Thyroid Feeding, by Eulenburg..... 256
The Treatment of Diphtheria with Diphtheria Antitoxin, by Dr. Edwin Rosenthal..... 258
The Perils of Hysteropexy, by Gottschalk..... 254
The Decadence of Opium, by Wendell Reber 235
Tetanus 243
The Question of Puerperal Self-Infection, by Dr. Charles Jewett..... 224
The Surgical Treatment of Backward Displacements of the Uterus with Special Reference to Vaginal Fixation, by Dr. Hiram N. Vinebery. ... 230
The Technique of the Improved Cesarean Section, by Dr. Henry J. Garrigues..... 227
The New Works of Science..... 244
The Dangers of Stoves..... ... 247
The Clinical Thermometer..... 248
The Causation of Face Presentations.. 252
Treatment of Incipient Phthisis..... 824
Transmission of Tuberculosis..... 815
The Causes of Death in Pneumonia.. 847
Treatment of Diphtheria 825
Tubercnlous Meningitis Ending in Recovery.... 825
Tuberculosis of the Female Genital Organs..... 852
The Malaral Parasite..... 848
The Effects of Alcohol on Digestion.. 828
The Differential Diagnosis of Neurasthenia and its Treatment 854
The Relation of Gastric Acidity to Acidity of the Urine..... 849
The Diagnosis and Treatment of Ureteritis in Women..... 852
Tincture of Digitalis..... 856
Thyro-Iodine 830
The Nose and Micro-organisms..... 843
Tobacco and the Eyesight..... 847
The Treatment of Acute Tonsilitis... 839

Urotropin, by J. A. Flexner, M. D..... 250
Use of Forceps..... 807
Unwritten Medicine..... 175

Vivisection. by George M. Gould. M. D..... 633
Vital Actions..... 409
Variations in the Pulse and Cardiac Volume with Corresponding Changes in the Size of the Liver and Spleen.. 695

Vivisection 773
Vomiting of Pregnancy 794
Vaccination 840

Which is the Quicker Anæsthetic Chloroform or Ether? 182
What the Patient Expects and What We are Able to Do in Chronic Catarrh of the Tympanum or Middle Ear with Deafness, by Dr. Lawrence Turnbull. 95
Who? 420
What Constitutes a Cure in Pulmonary Tuberculosis 384
Why Most Physicians Die Poor 490
Why Does the Office Patient Receive Less Attention at the Hands of the General Practitioner Than Does the one Treated at Home? 782

Xeroform (Tribromphenol-Bismuth), A New Antiseptic in Powder Form, by Dr. E. Heuss 798

Yeast Nuelein in the Treatment of Hip-joint Disease 707

BOOK REVIEWS.

An American Text-book of Surgery—For Practitioners and Students, by Chas. H. Burnett, M. D. 68
A Manual of Medical Jurisprudence and Toxicology, by Henry C. Chapman, M. D. 187
A Singular Life, by Elizabeth Stuart Phelps 349
A Treatise on the Diseases of Infancy and Childhood, by J. Lewis Smith .. 347
A Text-book upon the Pathogenic Bacteria, by Joseph McFarland, M. D 346
An Introduction to Human Physiology, by Augustus D. Waller, M. D., F. R. S. 189
A Treatise on Nervous and Mental Diseases, by Landon Carter Gray, A. M., M. D. 344
A Text-book of the Principles of Physics, by Alfred Daniell, M. A., LL.B. B Sc., F. R. S. E. 343
A Manual of the Practice of Medicine, by George R. Lockwood, M. D. 186
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Color-Vision and Color-Blindness, by J. Ellis Jennings, M. D. (Uni. Penn) 349
Clinical Lectures on Abdominal Surgury and Other Subjects, by Charles T. Parks, A. M., M. D. Edited by Dr. A. J. Ochsner 786

Diet for Infants and Children in Health and in Disease, by Louis Starr, M. D. 495
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Dr. Kings Medical Prescriptions, by John H. King, M. D. 188
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Diphtheria and Its Associates, by Lennox Browne, F. R. C. S 72
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International Clinics. Edited by Judson Daland, M. D., J. Mitchell Bruce, M. D., F. R. C. P., David W. Finlay, F. R. C. P. Vol. II., Vol. III. Fifth Series 73

Medical Diagnosis, with Special Reference to Practical Medicine, by J. M. Da Costa, M. D., LL.D 345
Materia Medica and Therapeutics. A Practical Treatise with Especial Reference to the Clinical Application of Drugs, by John V. Shoemaker, A. M., M. D. 68

New Truths in Ophthalmology, as Developed by G. C. Savage, M. D. 495

Obstretric Accidents, Emergencies, and Operation, by L. C. H. Boislinière, A. M., M. D., LL.D. 627
One Woman's Story; or, The Chronicles of a Quiet Life, as Told in Dorothea's Diary, by Ellen A. Lutz 76

Principles of Surgery, by N. Senn, M. D., Ph.D., LL.D. 185
Pediatrics. The Hygiene and Medical Treatment of Children by Thomas Morgan Rotch, M. D. 72
Pregnancy, Labor, and the Puerperal State, by Egbert H. Grandin, M. D. . 69
Papers and Addresses of Martin B. Anderson, LL.D. 76

Rambles in Japan, The Land of the Rising Sun, by H. B. Tristram, D. D. 350

Syphilis in the Middle Ages and in Modern Times, by Dr. F. Buret..... 347
Saunders' American Year-Book of Medicine and Surgery. 1896..... 70
Southern Heroes, or the Friends in War Time, by Fernando G. Cortland. 75

The Insane and the Law, by George Pitt Lewis..... 189
Transactions of the American Microscopical Society..... 348
Thinking, Feeling, Doing, by E. W. Scripture, Ph.D..... 76

Therapeutics of Infancy and Childhood, By A. Jacobi, M. D..... 185
The Year-Book of Treatment for 1896. 187
Transactions of the National Electric Medical Association of the United States of America for the Years 1894–'95..... 189
The International Medical Annual and Practitioner's Index for 1896 493
The Stomach; Its Disorders and How to Cure Them, by J. H. Kellogg, M. D..... 786
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Frendenberg (The Journal) in a series of statistics of the practice of the Midwives' Training Institute, Cologne, for fifteen years, states that the forceps was applied to the after-coming head in 59 labours. In 18 the presentation was pelvic, and there were besides 12 extractions, 17 versions, and 12 induced labours. In 31 of the 59 the pelvis was narrow. Three mothers were lost in the 17 turnings, 1 in the 12 artificial premature labours, and the remaining 55 mothers recovered, In 2 of the 4 maternal deaths the pelvis was contracted; 3 of the deaths were due to fever, 1 to loss of blood from placenta prævia; 6 of the surviving mothers suffered from puerperal complications, none being very severe. Out of the 18 pelvic presentations, 13 children were born alive, 2 died during labour, and 3 were delivered putrid. Out of the 12 extractions 4 were lost during labour (all, it appears, through difficulty in bringing down the arm), and 1 was macerated. Six children only were born alive in the 17 version cases, 6 lost during labour, and 5 born putrid. Only 3 of the 6 born alive survived the puerperium. Out of the 12 induced premature labours, 5 children were born alive, but of these only 2 lived, 1 dying from exhaustion, 1 from fracture of the parietal bone, and 1 from trismus on the eleventh day; 4 died during labour, 2 from fractured cranium; and the remaining 3 were putrid at birth. The pelvis was badly contracted in the 12 induced labours.

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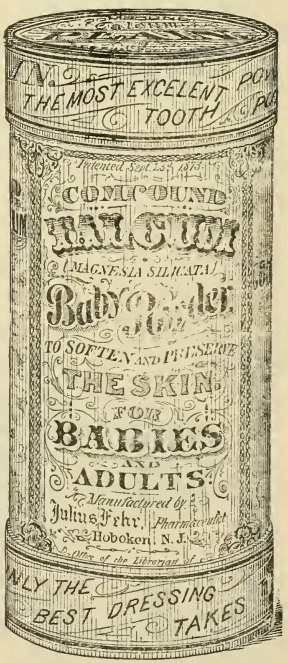

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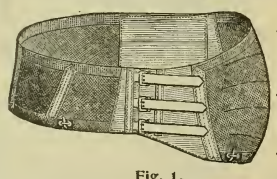

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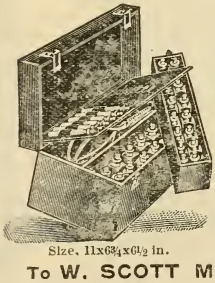

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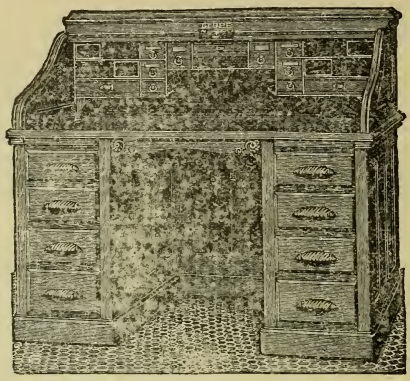

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